YACHTING

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Taking it solid over the foc's'le head. When driven in a sea the chasers were wet, but on the whole made good weather of it on the trip across the Atlantic

Over and Back

By SAMUEL WETHERILL

Lieut. (j. g.) U. S.N.R.F., In Command S. C. 334

Handling a Sub-Chaser on the Trans-Atlantic Passage

WHOLE volumes have been written about the American 110-foot sub chasers—how they were built, how they were equipped, and the various odd jobs they performed on both sides of the Big Pond. Yet very little has been told about that in which every sailorman is interested—how they made their long passages at sea when they could not carry fuel for half the distance, how they were handled and the life aboard them, and how they crossed and re-crossed the Western Ocean often in the hardest months of the Winter. So the Editor, who knows all about sub chasers himself, having commanded a flock of twenty of them, has put up to me the job of telling what I know about it.

To begin with, the chasers were designed for coastwise patrol on the shores of the good old U. S. A., and not for transatlantic trips. But the invention of practical listening devices, which were of no great value on steam-propelled vessels, suddenly put the chasers in great demand. They could track the U-boat when she was submerged, which no other type of boat had been able to do satisfactorily, and drop their 400-lb. "ash cans" more accurately than even the destroyers, on account of their quicker maneuvering ability. Therefore, the place for chasers was in the war zone, where the "subs" were thickest.

Although the British M. L. boats, 80 feet long, which were built in this country, had been sent across on the decks of steamers, this was deemed impracticable for boats 110 feet long, so it was decided to send them over on their own bottoms, part of the time under tow, but principally under their own power. Of course, they were mere cockleshells for this kind of work and they could not carry enough fuel, or water, or food. But go they must, and they went—and returned. And this is a story of how it was done, and some of their experiences while doing it.

The first move was to equip each boat with a towing band, which was a steel strap about 3/8 inches thick and 2 inches wide, completely encircling the boat, being riveted through the guard rail, thus removing the strain of towing from one spot and distributing it evenly over the entire hull. Pennants of steel cable were shackled to this both at bow and stern. Sometimes a large swivel was placed in between, to let the turns out of the towing hawser.

A manila towing hawser, from 3 inches to 4 inches in diameter, and from 40 fathoms to 60 fathoms long, was issued to each boat. These were the bane of our existence. They were brutes of things on a small craft, heavy, stiff as lead pipes when wet, and there was no place to stow them properly. On some boats they were lashed in long bights to the life rails, on some they encircled the forward cabin trunk, one or two boats managed to jam them in their lazarettes, and on some, in desperation, they were coiled down on top of the pilot house. They

were certainly unwelcome visitors.

It was decided at first to send the chasers over in convoys of twenty-five or more at a time, accompanied by a mothership, a tanker for fueling at sea and four or five seagoing tugs to tow the stragglers. They were not sent directly across, but went by way of Bermuda and the Azores. This southerly route was longer but it split up the trip into shorter jumps and the average weather conditions on this route were more favorable to a safe crossing.

I will never forget the first leg of our journey, from Newport to Bermuda, a distance of some 670 miles. Six of us left Newport late in the afternoon of a beautiful June day, accompanied by the mothership *Buffalo* and the Revenue Cutter *Tuscarora*. The chasers were in a V formation, with the larger vessels inside the V, for protection against submarine attack. The standard speed was 10 knots, zig-zagging in the day time, but keeping a straight course at night. Of course, no lights of any kind were carried.

The first twenty-four hours were uneventful, and then the fun commenced. The breeze piped up to between 30 and 40 miles, and we began to appreciate why the Gulf Stream has such a poor reputation. Fully three-fourths of all the crews went down and out, the decks and cabin trunks began to leak, all bunks were soon soaked, and things were in a sorry state generally. Everything was battened down tight, and the lack of ventilation below decks made the cabins untenantable. One man reported to me, "Can't stay down in that forecastle, Sir. Smells like a monkey-house." There was no place to sleep except on the bridge, in the wherry, or on top of the pilot house.

First she rolled one way and—

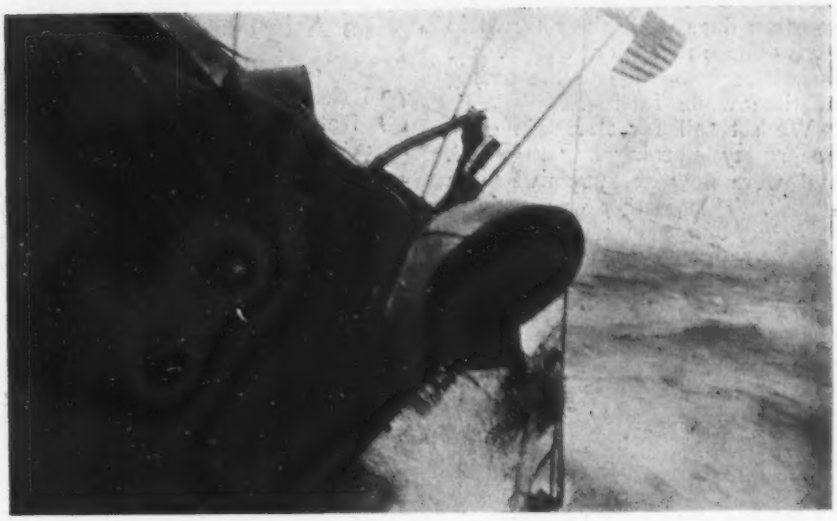
After about thirty-six hours of this, I began to feel a bit groggy myself, and suddenly realized that I had forgotten all about eating. I sent a man back to the galley to rustle up something, but he returned empty-handed, saying, "Nothing much doing, Captain. Galley's in awful shape." I then went aft myself and lifted the galley hatch. The sight was indescribable. Pots, pans, coal, potatoes, canned goods, ketchup and bilge water—everything was all over the shop. The stench was overpowering. Both my alleged cooks had collapsed when the first seas struck us and let the whole place go to smash, despite my previous detailed instructions about stowing in readiness for sea. So we dug up some pilot biscuit and "tin Willie" from the lazarette, and washed it down with some grape fruit, a case of which, fortunately, we had lashed on deck.

We finally made Bermuda in three and a half days, much the worse for wear. For a week all hands were busy drying out gear, and plugging up leaks in every conceivable way. After six weeks of strenuous training at New London and the tough trip across the Stream, we certainly enjoyed the semi-tropical scenery and climate, to say nothing of the splendid bathing and fishing and the delightful informal dances given by the hospitable Bermudians.

Before leaving Bermuda we were joined by twenty-four more chasers, another mothership, a tanker, and several tugs and minesweepers, so that our formation was now more complicated. As soon as we got out of the harbor and clear of St. David's Head the chasers were formed in five parallel columns, two hundred yards between columns and one hundred yards between chasers. The motherships and tanker were in the middle, and the tugs brought up the rear, where they could be on the lookout for cripples.

Besides the monotony of this 1900-mile jump to the Azores, which took fourteen days, the chief things which stick in my memory are two—keeping in position in close formation, and fueling from the tanker. It was no easy matter for untrained officers and helmsmen to gauge distance and steer straight in a following sea. With a chaser 100 yards ahead of you, another astern, and others on either beam, a false move meant a smash-up. It was bad enough in day time, but worse at night, with nothing but a blur to guide you. On the whole, we made a fair job of it, although the timid ones, who were constantly lagging and lengthening the formation, were thorns in the side of the convoy commander.

Fueling in mid-ocean with two chasers on each side of the tanker was a ticklish job



—then she rolled back the other way

The fueling problem was responsible for more gray hairs than all the Hun subs that ever left Kiel. The chaser would range alongside the tanker, making anywhere from four to 10 knots, make fast a towing line around the gun mount forward, and a breast line through the "bull nose" in the bow, to keep the chaser from taking a sudden sheer from the tanker. A hose was then passed from the tanker, equipped with a Y attachment so that two tanks could be filled at once. Chasers answer the helm slowly at moderate speed, and it required excellent judgment to keep just the right speed and expert steering to keep from walloping the tanker, or sheering out and snapping the breast line. The tanker handled four chasers at once, two on a side. If the forward chaser parted a line, it took quick handling to keep from dropping back on top of the one astern.

Fire was another ever-present danger when fueling. A great deal of gasoline was necessarily spilled, and the wash-deck hose was kept going to sluice down and wash off the gas as fast as possible. A spark from engines or radio was all that was necessary to turn the chaser into an inferno, and everyone breathed a sigh of relief when fueling was finished.

Some convoys fueled oftener than others. On one trip from Bermuda to the Azores the whole fleet fueled five times, not that they actually needed the gas each time, but as a precautionary measure in case a storm made fueling impossible, or in case a chaser got lost from the convoy and had to make port alone. On the other hand one convoy fueled but twice on this same trip, and got away with it, without any trouble.

We pulled into Ponta Delgada, Azores, on July 21, fourteen days out from Bermuda. Although no real bad weather was met with, the winds being Westerly most of the time, we certainly were glad to get on dry land once more, the constant rolling, canned food diet and shortage of water having gotten on our nerves. Our water supply having been strictly limited we were a dirty, unshaven bunch when we arrived, and headed straight for the nearest bath and barber shop the minute we hit the beach.

Ponta Delgada struck us as a dirty hole, and the inhabitants not much cleaner. There was plenty of liquor, but of very poor quality, and having lost our shirts "playing the wheel" we were soon anxious to be on our way again.

There being no tanker available for the 900-mile jump from Ponta Delgada to Brest, it was decided to tow the chasers part of the way, for in case of adverse weather it was doubtful if we could make it without additional fuel. So, as soon as we were clear of the harbor, tow lines were broken out. The motherships each took six chasers, in strings of three on each quarter, the tugs taking only three each.

The sea was as smooth as the proverbial mill-pond for two days, a speed of six knots was made, and everything was lovely. But on the third day a ground swell put in its appearance, and the fun commenced. String after string of chasers broke loose. The towing pennants and shackles were the first to go, and finally the hawsers themselves. It was back-breaking work hauling up sixty fathoms of wet 8-inch manila, when it was pointed straight to China, and after two days of this the welcome signal was received to proceed under our own power, which we did, and reached Brest with fuel to spare.

This part of our journey consumed nine days, or at the rate of only about 100 miles a day. This was the slowest trip we made, due to the many delays while towing. We had fully expected a good dusting in the Bay of Biscay, but were agreeably surprised to find it no rougher than in mid-ocean. Having arrived at Brest on August 5th, we left again on August 10th, crossing the English Channel in eighteen hours to Plymouth, where we soon got busy at the game of "Hunting the Hun."

After operating off the English and Irish coasts until the Armistice, we spent the next twelve weeks in winter quarters at Plymouth,

When ready for the transatlantic trip the decks of the chasers were "some mess" with extra oil barrels lashed in all available space

and on February 15th, ran across the Channel to Brest again, bound home. There we were held up until March 15th, when the return journey was begun, the first leg being to Lisbon, thence to the Azores, Bermuda and home. Our decks were now encumbered with ten 50-gallon drums of gasoline and several barrels of lubricating oil, so that our cruising radius was considerably increased.

As I remember it, the distance from Brest to Lisbon is about 800 miles. We made it in a little over four days. We got across the Bay of Biscay all right, but had to plough through a 50-mile gale down the Spanish coast. All the chasers stood the gaff splendidly, only one boat being taken in tow, this being due to water in the gasoline, and not to mechanical trouble.

We thoroughly enjoyed our ten-day stay in Lisbon, the clear, balmy weather being greatly appreciated after months and months of constant rain and fog which we endured during our stay in English, Irish and French ports. The country thereabouts was interesting and the night life had Paris backed off the boards.

Fairly decent weather prevailed on the trip from Lisbon to Ponta Delgada, and we completed this 800-mile jump in the same time as the one from Brest to Lisbon—four days. Up to this time we had not been accompanied by a tanker, as our extra 500 gallons of gasoline carried on deck was enough to see us through, although one or two boats, through loss of efficiency due to foul bottoms and bent wheels, barely managed to make port without assistance. A week spent in Ponta Delgada was all we wanted for repairs and getting on stores, and all hands were anxious to begin the long hike to Bermuda, which would be within hailing distance of home.

Valuable lessons were learned in fueling on the way over, and full advantage was taken of them on the return trip. Originally the whole convoy slowed down to about four knots, the fueling chasers being towed by the tanker. Experience proved that it was far easier to fuel at eight, or even ten knots. The chaser made fast to the tanker as before, but with more scope to the lines, and kept one engine going to take the strain off the towing hawser. They handled much better at the increased speed, and much valuable time was saved, the time of the original convoys between the Azores and Bermuda having been between twelve and fourteen days while the return trip was done in ten or eleven, the difference being due to the saving of time while fueling.

We set sail for Bermuda on a fine sunny morning late in April, and were now accompanied by a tanker. The weather was made to

Meals tasted better on deck than below.

It took all hands to haul the towing hawser aboard

order for the first five days, and then suddenly changed for the worse. It blew somewhere between fifty and sixty miles for thirty-six hours, and the convoy became badly scattered. We rolled worse than at any other time I can recollect during my year spent on a chaser. One big fellow hit us and put us on our beam ends. My quartermaster, making his way forward from the after quarters, hung on to the lee life rail until he went clear under, his grasp was broken, and he was swept overboard, OVER the life rail. A

(*Continued on page* 330)

Los Angeles Goes After Speed Records

SENSATIONAL speeds have featured the various regattas at and near Los Angeles on the Pacific Coast, this season, and the racing has been the best and most exciting ever held in Southern California.

The Labor Day races at Balboa were won by *Hurricane,* a big 35-foot Hacker-designed displacement boat owned by W. W. Padden of Los Angeles. *Hurricane* is a duplicate of Edsel Ford's *Comanche,* and is powered with two six-cylinder 200 H. P. Hall-Scott marine engines. *Miss Los Angeles,* Dustin Farnum's runabout, finished second in all three heats.

One of the most interesting races of an eventful racing season was the motorboat speed trials for the Hal Roach Trophy, held in the waters off Port Los Angeles on October 3. This trophy was to go to the boat making the fastest straightaway mile.

Mystery V., owned, designed, built and raced by that well-known yachtsman, Frank A. Garbutt, won the trophy. In doing so Mr. Garbutt broke the World's mile record for motorboats of the displacement type. His boat, equipped with twin Liberty motors, covered the mile in 1 minute, 9 seconds flat. The best previous record was set by *Miss Nassau,* which made a mark in Detroit waters of 49.25 an hour. The time of the *Mystery V* equalled 52.18 miles an hour. The official results were as follows:

Boat	Time	M.P.H.
Mystery V.	1.09	52.18
Vogler Boy III	1.17 2/5	46.6
Rainbow	1.19 2/5	45.35
Hurricane	1.24 4/5	42.5
Cad-Hill	1.31	39.6
Fellows 4	1.32 4/5	38.8
Miss Los Angeles	1.57	30.76

The course was officially surveyed by reputable engineers. The official timers were: George Adair, Les Henry, Wm. Himrod, Fred Cady and Charles Keppen.

The annual race from Port Los Angeles around Santa Catalina Island, a distance of 75 miles on the open ocean, also produced new speed records unequalled in events of this character.

Three high speed racers started in this long grind and all three finished in perfect shape, each boat breaking all existing records for the distance. An interesting feature of the race was that the United States Navy detailed the *U. S. S. Parrott* one of the Pacific fleet's destroyers, to accompany the racers in their long jaunt. Despite her 32,000 "horses," *"Poor Polly,"* as she was called, was

unable to keep up and the best that she could do was to finish 21 minutes after the last boat and 31 minutes behind the winner.

From the very start the race was a spectacular duel between *Mystery V,* the latest Garbutt monoplane, and *Hurricane,* Padden's 35-footer. *Mystery V* obtained the lead at the start, but encountered some trouble with spark plugs and was passed by *Hurricane,* which pulled out a considerable lead. For some unaccountable reason *Hurricane* kept well out from the Island, enabling *Mystery* to gain on her by taking short cuts close to the shore. *Hurricane* managed to hold the lead until the final dash for the line when *Mystery V* nosed in ahead of her and won by six seconds in a very spectacular finish. The winner's time for the 75 miles was one hour and 48 minutes, and *Hurricane's* time only six seconds greater, so that the speed of both boats figures out as better than 41½ miles an hour, which is, we believe, the best time ever made in competition on the open sea for such a distance. *Fellows IV* finished ten minutes behind the leaders, and well ahead of the destroyer.

Mystery V, a Pacific coast flyer, owned by Frank A. Garbutt, that has been burning up the waters near Los Angeles. She is credited with a speed of 52.18 miles per hour

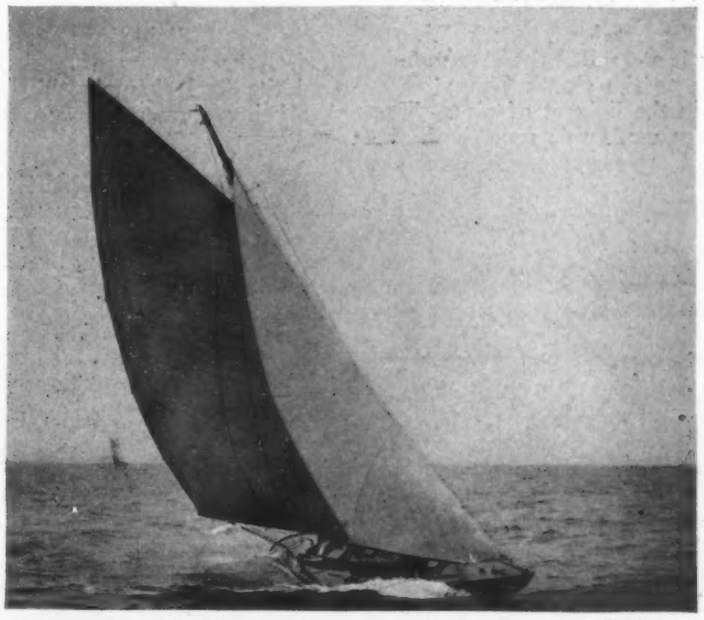
In the annual race for the Nordlinger Trophy, emblematic of the Southern California speed boat championship, held Oct. 23 and 24th, Dustin Farnum again won the cup, this time with his brand new *Eleda,* a displacement runabout, powered with a 12-cylinder motor, which arrived only ten days before the race. The Nordlinger Trophy race is held in three heats of 24 miles each, over a three-mile course in the outer harbor, eight laps to a heat.

This year's race was somewhat marred by accidents caused by the immense amount of submerged and floating driftwood which, before the finish, eliminated all but three of the competitors, in fact only two came through absolutely unscathed and one of these was put out of commission immediately after the finish of the last race.

The Month in Yachting

The Season's Results on Lake Michigan

THE opening of the 1920 season at the Jackson Park Yacht Club, of Chicago, saw the departure of many old-time boats from the fleet, such as *Seminole, Pilot, Columbia, Ste. Claire, Cherry, Neoga* and *Prairie.* This loss threatened to spoil the principal racing class of previous years. The breakup in the 25-foot class left only the raceabout *Hobo* and the 20-footer *Flora* to represent the small sloop class, while Bert Williamson's *Edith II* and Hallett Redmon's *Spray* were the only survivors in the once numerous and famous 21-foot cabin class. *Mildred II* alone represented the 30-foot class.

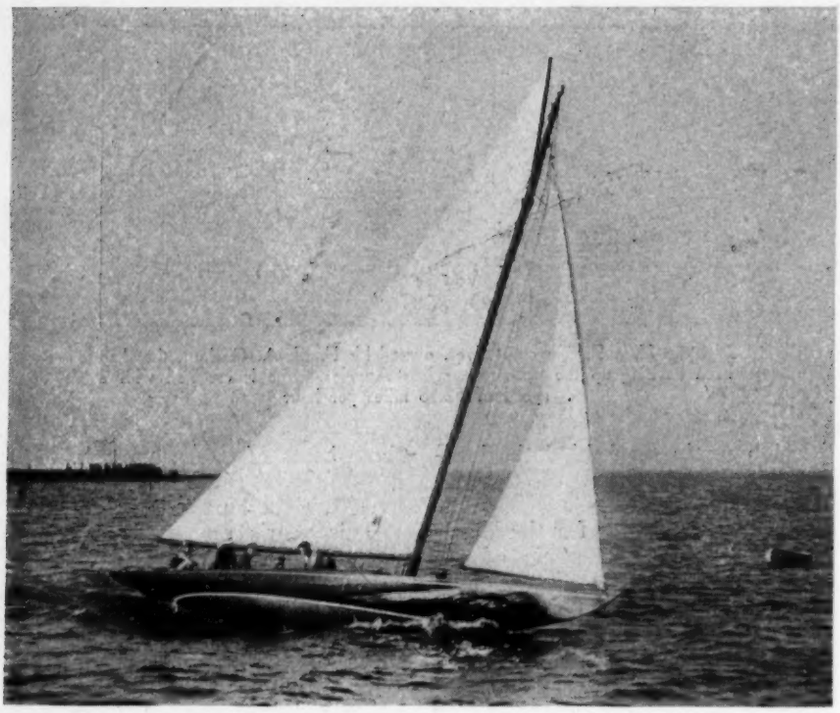


Class P sloop *Intrepid,* one of the survivors of class P on Lake Michigan. She did well this season, although out of her class much of the time. Owned by Donald Prather and Vernon Farrell

In the Q class four boats raced throughout the season—*Chaperon, Virgina, Jackson Park II* (formerly *Arvia*), and *Gray Jacket.* With the Q's in the first club series raced D. F. Prather and V. E. Farrell's Class P sloop *Intrepid.* In the latter part of August, Roy Knauer and his sailing partners brought to Jackson Park the old 35-foot class sloop *Sally VII.* At the same time, Kyle's big schooner *Agawa* joined the fleet. These two made notable additions to the fleet under the Jackson Park burgee.

The club was also well represented in the yawl class with twelve of these boats, only a few of which, however, showed any interest in racing.

The keenest competition developed throughout the season between the two 21-footers and the four Q's. The Q's are a new addition to the club and were not content with the regular races, but participated also in many specially arranged contests. *Virginia* and *Jackson Park II* made the best showing during the season.



Class Q sloop *Jackson Park II*, formerly *Arvia*. She had a most successful season on Lake Michigan

The Jackson Park Yacht Club successfully managed the biggest racing event on Lake Michigan this season—the Lake Michigan Yachting Association's Annual Open Regatta. For the first time boats from the Steel Mills and South Shore Yacht Clubs, of Milwaukee, participated in this event. Thirty-two boats started and only the light wind which prevailed prevented many more from arriving from Belmont Harbor in time to compete. The winners were:

Twenty-five-foot Cabin Class, *Pequod*, Chicago Y. C.

Raceabout Class, *Rival*, Chicago Y. C.

Thirty-foot Class, *La Rita*, Steel Mills Y. C.

Yawl Class, *Windward*, Jackson Park Y. C.

Twenty-one-foot Cabin Class, *Columbia*, South Shore Y. C.

Thirty-five-foot Class, *Seboomook*, Chicago Y. C.

R Class, *Sari*, Chicago Y. C.

Q Class, *Chaperon*, Jackson Park Y. C.

P Class, *Intrepid*, Jackson Park Y. C.

The Open Michigan City Race of the Jackson Park Y. C. was a big success, and the Q class entry, *Jackson Park II*, defeated the entire fleet for corrected time prize honors. The class winners turned up as follows:

Twenty-foot Class, *Flora*, Jackson Park Y. C.

Twenty-five-foot Class, *Seminole*, Chicago Y. C.

R Class, *Gossoon*, Chicago Y. C.

Raceabout Class, *Springtime*, Chicago Y. C.

Yawl Class, *Omoo*, Jackson Park Y. C.

Schooner Class, *Fame*, Chicago Y. C.

Twenty-one-foot Cabin Class, *Spray*, Jackson Park Y. C.

Q Class, *Jackson Park II*, Jackson Park Y. C.

Thirty-five-foot Class, *Dorello*, Chicago Y. C.

The race to Milwaukee was managed jointly by the Chicago Y. C. and the Jackson Park Y. C. Forty boats sailed the seventy-mile course to the South Shore Yacht Club in the lightest of airs. Most of them made this race the beginning of their cruise. The winners in the various classes were:

Twenty-five-foot Class, *Gypsy*, South Shore Y. C.

Raceabout Class, *Rival*, Chicago Y. C.

R. Class, *Rainbow*, Chicago Y. C.

Thirty-foot Class, *Pilot*, Steel Mills Y. C.

Schooner Class, *Agawa*, Jackson Park Y. C.

Yawl Class, *Dolphin*, South Shore Y. C.

Twenty-one-foot Cabin Class, *Cherry*, Jackson Park Y. C.

Q Class, *Chaperon*, Jackson Park Y. C.

Thirty-five-foot Class, *Dorello*, Chicago Y. C.

The year 1920 thus saw the fleet depleted through the loss of many of the older boats, while new ones had not yet come in sufficient numbers to fill their places. The growing tendency of members to get fast Universal Rule boats has prevented the purchase of any but possible winners. But plans now in the making will, undoubtedly, result in a big, up-to-date, well-balanced fleet next season. The prevailing high prices of boats have also had their part in delaying any large additions to Jackson Park's fleet, but increased building will help relieve this condition, it is believed.

The racing season was, however, a successful one, and showed a total of 228 starts, as the following table shows

Entries in club races	73
Entries in Jackson Park Y. C. open races	112
Total	185
Jackson Park Y. C. Entries in Open Races of Other Clubs	
Columbia Y. C. Michigan City race	13
Stratford Hotel Cup, Michigan City-Chicago	5
South Shore Y. C., Milwaukee to White Lake	6
Chicago Y. C., August 18th Regatta	10
Chicago Y. C., Waukegan race	6
Chicago Y. C. Special 35-ft. Class	3
Total	43
Total number of starters	228

Arrow Class Championship Close

The Arrow Class of the Indian Harbor Yacht Club had a hot fight for championship honors and in the final reckoning there was only .24 of one per cent between the *Snapper*, owned by Frank S. Page, and Leonard Dyer's *Jack O' Lantern*, sailed by "Ab" Brush. A total of 29 races was sailed seven of which were at the open Sound regattas, and the balance over the club's courses. These races were divided into monthly series, the winners of each series and the final championship standing being shown below:

JUNE SERIES

Snapper	94.44%
Jack O'Lantern	72.22
Hawk	56.66
Windward II	52.77

JULY SERIES

Snapper	73.96%
Windward II	71.44
Jack O'Lantern	70.21
Hawk	62.50

AUGUST SERIES

Jack O'Lantern	86.11%
Hawk	69.44
Snapper	68.75
Windward II	56.25
Rani	47.62
Bubble	D.N.Q.

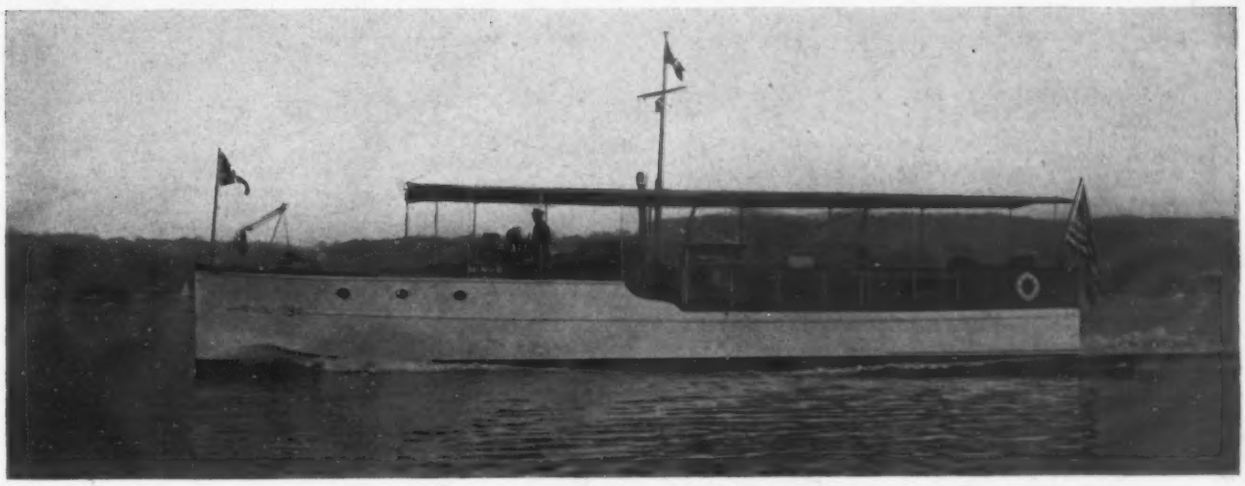
SEPTEMBER SERIES

Snapper	69.05%
Windward II	64.29
Bubble	54.76
Hawk	36.11
Jack O'Lantern	D.N.Q.
Rani	D.N.Q.

SEASON'S CHAMPIONSHIP

Yacht, Owner and Standing

Snapper, F. S. Page	75.60%
Jack O'Lantern, Leonard Dyer	75.36
Windward II., R. A. Monks	61.18
Hawk, Ralph E. Slavin	56.18
Bubble, W. H. Bowes	D.N.O.
Rani, G. Pynchon, Jr	D.N.Q.



Mimi B, owned by John Bossert, of Brooklyn, is a new 53-footer for cruising in Florida and on Long Island Sound. She is now on her way South for the winter

The Arrow boats are fine little craft, 31 feet 10 inches over all. They were built for members of the Indian Harbor Y. C. in 1916, and have all been owned in the club ever since, where they have furnished the scrappiest kind of racing, being sailed by some of the best known sailors on Long Island Sound.

Seawanhaka Y. C. Arranges International Race

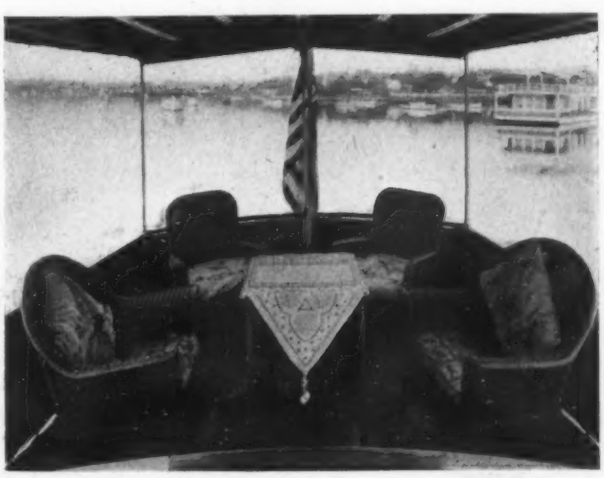
All preliminaries have been concluded for an international race next year between the Seawanhaka Corinthian Yacht Club, of Oyster Bay, and the Royal London Yacht Club for a race in the six meter class on the Solent next August. It is hoped that this will prove the first of a series of regular races between these two clubs, alternately on this side and in British waters. The race this year is a strictly interclub affair and at least two and possibly four boats will be built to the British six meter class, International Rule, by members of the Seawanhaka Club to meet an equal number of boats built by members of the Royal London Yacht Club. The challenge has been accepted and we understand that three boats are being built on the Clyde and three on the Southern coast from which to pick the defending team. This race ought to do much to promote racing in the smaller classes, equivalent to our S or R class, but as it is an interclub affair it will not do as much as if all American yacht clubs were invited to build boats to participate in trial races to pick a team, as was the plan of the Indian Harbor Yacht Club, who took up the matter with the Royal Thames Yacht Club for a race in our R class, as has been referred to in previous issues of YACHTING.

Mimi B, A Cruiser for Southern Waters

The new cruising yacht *Mimi B*, the photographs of which are reproduced here, has just been delivered by her builders the New York Yacht Launch & Engine Co., of Morris Heights, N. Y., to her owner, Mr. John Bossert, of Brooklyn, and is now on the way to Palm Beach and Miami, Fla. She is a fine-looking, comfortable boat, and is ideal for the purposes for which she was designed.

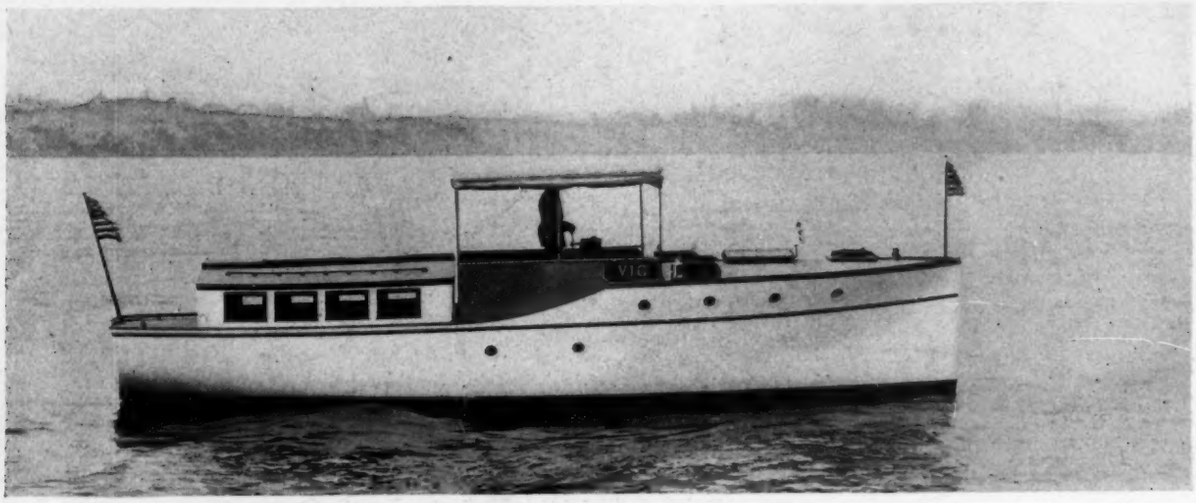
This new cruiser is practically a duplicate of the well-known cruiser *Oriana II*, which this company built this Spring for Mr. Arthur T. Murray, of Springfield, Mass. The length over all is 53 feet 6 inches, beam 12 feet 6 inches, draft 3 feet 3 inches, and she is powered with a 4-cylinder 4-cycle Twentieth Century Marine motor, developing 40 to 50 H. P., and driving the boat 11½ miles per hour at cruising speed. The hull is of the usual N. Y. Yacht Launch & Engine Co.'s substantial construction. Planking is of Cedar and outside of trunk house is of Mahogany.

The interior finish is egg shell cream enamel with mahogany trim and all furniture is mahogany. The owner's quarters are trimmed with mahogany throughout. The highest grade of equipment is used throughout the boat.



The cockpit of *Mimi B* is roomy and comfortable

The main saloon, looking aft into the double stateroom



A new 36-foot standardized power cruiser which will be exhibited at the Motor Boat Show

A 36-Foot Standardized Cruiser

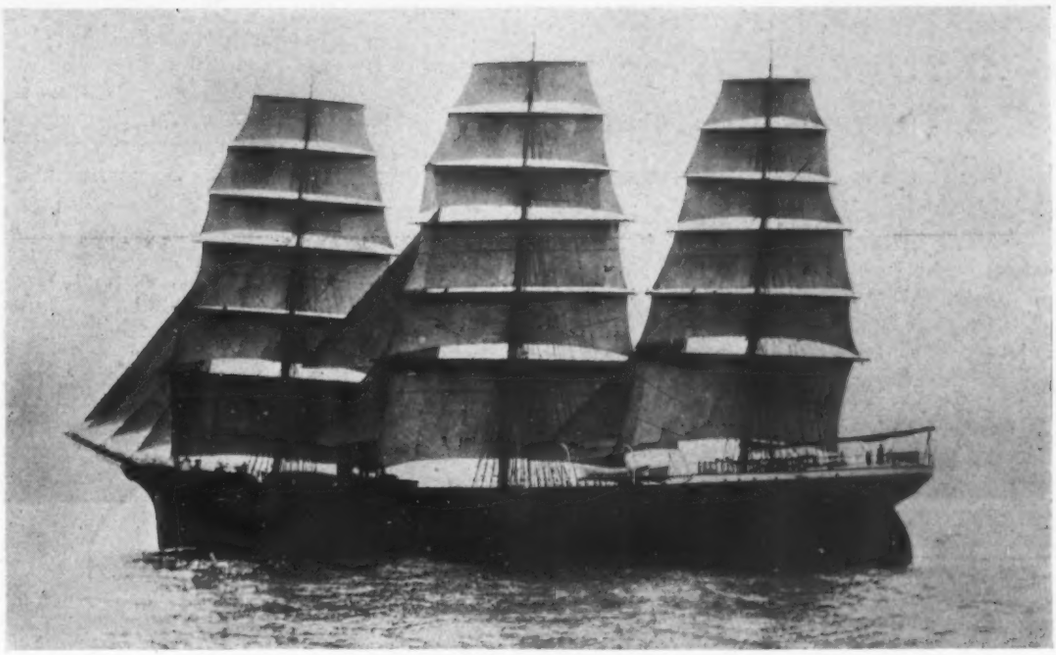
A 36-FOOT cruiser that has all the comforts and conveniences of a much larger craft and that has more accommodations below than any boat of this size that we have seen for some time, is the handsome power cruiser exhibited at the Motor Boat Show by the Burger Boat Co., in space No. B. From designs by Mr. Charles D. Mower, N. A., who has had long experience in boats of this type and who has done much to bring the power cruiser to its present state of development, this boat embodies all the qualities that make for seaworthiness in design with, at the same time, a handsome, well proportioned appearance. In selecting a boat to build as a standardized craft in order to obtain the advantages and saving possible in quantity production, the Burger Boat Company have hit upon probably the best size possible, for this boat is large enough to give all the necessary cruising accommodations for a party of six, while she is yet not so large as to put her out of the reach of the majority of yachtsmen.

On a waterline length of 35 feet (she is 36 over all), a beam of 9 feet and 3 feet draught, there is to be found a large forward cabin under the raised deck, which is used as a stateroom, with a berth on each side. Forward of this is a large and well appointed toilet room. The forward companionway from the bridge deck leads into a vestibule at the forward end of the engine room, where there are lockers, work bench, etc. In the after end of the boat is another cabin under a trunk cabin house with large windows, insuring plenty of light and ventilation. This cabin has heavy upholstered transom seats, the backs of which are hinged so that at night four berths can be made up here. There are clothes lockers at the after end of this cabin, while forward of it is the galley with sink and racks for dishes. On the starboard side is another toilet room. Access to this cabin is had from either the bridge deck or the after deck.

The bridge deck, which is the place used the most on board a boat of this size, is unusually large and all controls lead to the steering wheel standard so that the boat can be handled entirely from this position. The engine is located beneath the bridge deck and very neatly installed. The power plant is a four-cycle, four-cylinder, 25-35-horse power medium duty engine with electric starter and lightening outfit, and is fitted for salt water use. The speed of the boat is eleven statute miles per hour.

The after cabin, with berths made up for sleeping

The same cabin with table set for meals



"One afternoon we picked up a full rigged 'Limey,' flying light, bound out to the South'ard, and exchanged signals with her"

Before the Mast in War Time

By H. S. LAWRENCE

An Eight Months' Cruise in a Wind-Jammer Through the Submarine Zones

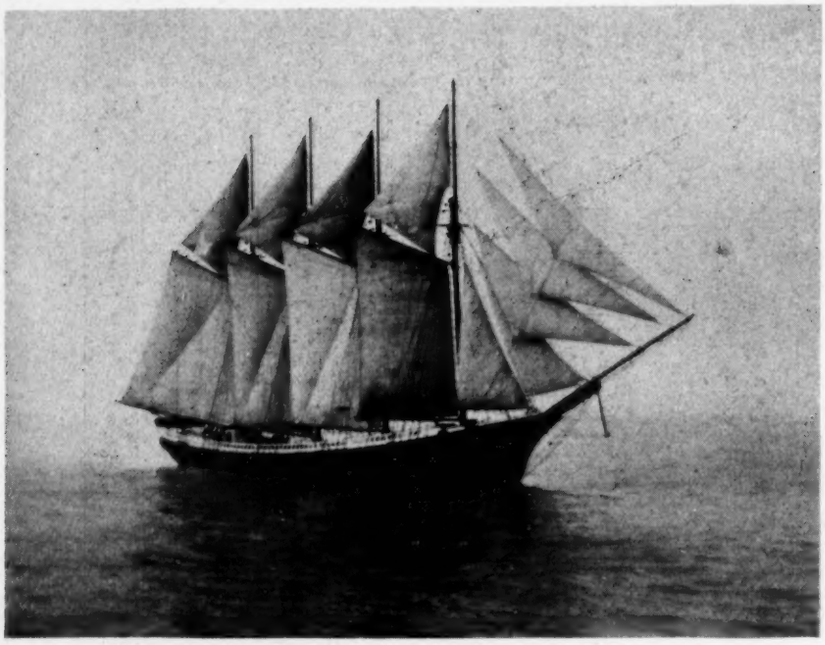
Part II

THE balance of that day we got under way from Boston was a busy one and the two mates saw to it, as we got everything about decks secured for sea, that we had no idle moments to think of our folly in shipping for the long voyage. The first day out is always a busy one, even on a steamer, and on a windjammer it is much worse, where the rigging is always in more of less of a mess after a long stay in port and has to be looked over and straightened out during daylight so as to have everything clear for running, in case of necessity, in the dark.

All loose articles and spare spars had to be secured and we rigged up life lines between the main and fore shrouds and set them taut to protect the crew when on the deck load, which was level with the rail from the break of the poop deck to the foc's'le head. The crew of a ship that sails in the morning is lucky, as they can get most of this done during daylight hours and get shaken down a bit before dark. Otherwise, if any bad weather is encountered that first night, there is generally a mess, on deck and below, with all hands strange to the vessel and to the leads of all the halyards, clewlines, braces, etc., while there is the ever-present likelihood of a bight being crossed in a coil, which means trouble whenever it is let run. And while all leads follow the same general plan in all vessels,—such as the maintopsail halyards on the starboard side and the fore on the port,—the location of the pins and the changes due to the deck load make each vessel just different enough to have it necessary to learn her before her crew can handle her smoothly.

I have not yet said anything about our mates, in whose hands our fates would be for the next eight months, or of the skipper, whom I had seen only once before sailing, that time being when I had signed on, during which operation I could not, naturally, size him up, as he only asked me my name and told me, gruffly, to "sign there."

The first mate, Mr. Elder, was a short, undersized man, evidently weighing not over 135 pounds, but as active as a cat and apparently a bundle of steel springs. He was all over the ship, forward and aft, sizing up everything at a glance and hustling the men from one job to another. As is often the case with a small man he had a self-assertive manner and used his mouth a lot to let the men know he was after them —just as if he was afraid that they might think, because of his stature, that they could take liberties with him. He wanted to let them know that he was boss and that they had to do as he said-*pronto*. But he was a sailorman. I could see that by the way he went about things and by the way he made sail on her and got things straightened out on deck. We sized him up that first day as a driver, and possibly as a nagger, but he was not unreasonable and I, for one, felt we would get on with him if we did our work and didn't talk back. The affair of the whiskey bottles got some of the crew down on him, but it also showed them that he wasn't afraid of them. As Hansen sized him up to me while we were rigging the star-



An American four-masted schooner we passed on our way to the Azores

board life line, "I bain't never seen any of them guys aft as would respect a man's rights or property, but this fella here he seems to know his chob, and I tank he won't lay his hands on us. Dat is all we can expect, anyhow, and de less we has to do wid him de better."

The second mate, Wilson by name, was a character out of fiction, if ever there was one. He was a typical seafaring man of the old school, and by that I mean of 40-odd years ago. What Mr. Elder lacked in size was made up in Mr. Wilson. Big, broad, tending to corpulency, with red hair and beard, his blue flannel shirt open at the neck in spite of the cold day and showing a mat of red hair on his chest, and his trousers stuffed into the top of sea boots, the second mate might have stepped off the deck of some Cape Horner of two generations ago. He must have been nearing sixty, though there was no gray in his beard and only a little in his hair, and he had come back to the sea, I heard, impelled by the demand for officers and the high pay to be had, after having left it for his farm in Nova Scotia, where he had been the last ten years. With no education and never having risen beyond a second mate's berth, the $150 *and* bonus he was getting seemed like banker's wages to him. His had been a rough school and his way was correspondingly rough. He worked with his hands rather than with his head, even in the simplest duties about deck, and he caused us many unnecessary jobs by his failure to look ahead or plan. But while he was rough in his manner as well as in appearance, "Bluenosers" were seldom the bullies that American mates were, and we figured we would have an easy time as compared with the old days of the Hell-wagons, days which only one or two of us forward knew of, and I only by reputation, as I had never been in a hard ship.

As the sun went down the wind increased and clouds banked up in the west. Before dark the skipper came up for a few turns of the weather alleyway and, after a word with the mate, that worthy came bustling forward as if shot out of a gun, with "Clew up fore and main royals and a hand aloft on each yard to furl 'em. Lively now, an' don't keep the cook waiting with supper."

I took the fore again and climbed up to the yard as soon as the halyards had been let go, anxious to see how I could roll and stow a sail aloft after ten years ashore. I got aloft all right, but found the royal a much larger sail than I anticipated, due to the fact that the yards were longer and the upper sails cut broader than in the old days when the rig tapered off at the top. So I had my hands full getting the sail rolled up snug on the yard. It was perishing cold up there with the wind going right through me, and my bare hands, soft from indoor work, were so numbed I could scarcely grip the hard, stiff canvas. With one arm hooked around the yard to hold on by I'd beat the refractory canvas with the other fist, to start the circulation, and then repeat the operation with the other fist. The man on the main royal (Jenson it was, as I learned) beat me badly, and was down on deck long before I was; but I got it done at last and made a neat job of it, though it was getting dark when I finished and got down again. But I had established my confidence and ability to work aloft, and was never worried thereafter about going out on a yard, day or night.

It was time for supper when I got down again, but before letting us go to it we were mustered aft by the mainmast, where the two mates were already, and the time honored custom of choosing the watches began, while the captain looked on from the top of the after house, where he was walking with a cigar in his mouth, to see which of his officers came off best in this game of guesswork—for it was not much better than that.

It was a small, inadequate, ill-equipped crowd that lined up there in the fast gathering dusk, each man wondering what his fate would be, for the lot that fell to him then, in the choice of which he had no part, might be for good or ill in the long months to follow, depending on the officer to whom he went. Most of us that knew the sea leaned towards the mate, for while he was the hustler of the two, he had brains and ability and, we knew, would save us much work in the long run.

The mates didn't waste any time in starting the fun, for Mr. Elder, without looking the gang over at all, sang out "Hansen, come over here," and Charley, the Norwegian, stepped over to port, with a grin on his face. The second mate countered with Big Mark, evidently thinking that "beef" was the thing, as it was all he had himself, and the Dane went over to starboard.

"Jensen," sang out the mate, and my heart sank, as I had hoped for the mate's watch and believed I had shown my ability during that long day. I felt that the second mate would now choose me in preference to the roustabouts that were left, but I was cheered when he picked out Darby, another big fellow, who was just getting over the effects of the liquor he had taken that morning. Even my pride wasn't hurt at his being picked ahead of me, as I now had another chance with the mate.

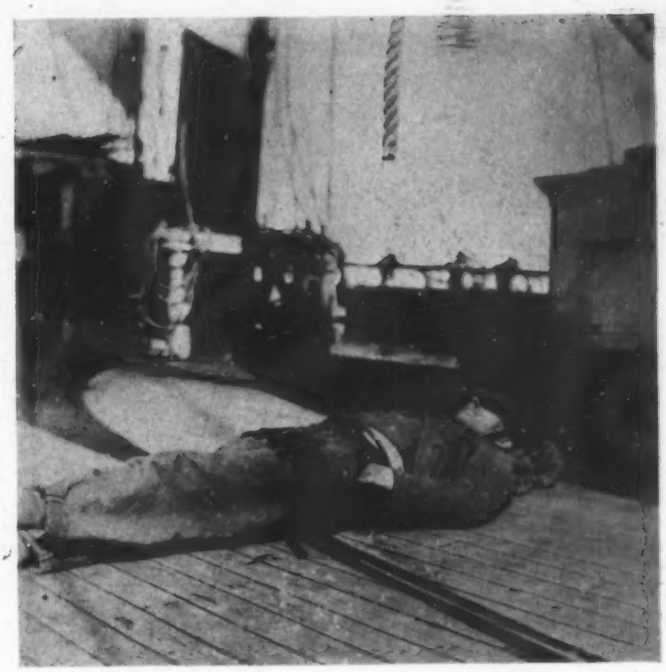
Mr. Elder didn't hesitate but snapped out, "Harvey to port," and I crossed over and joined the "squareheads" on that side.

Mr. Wilson took "Bill" Sykes, the best of the remaining three, and then it was a case of "button, button, who's got the button," on the next choice. Neither one had had any deep-water experience, and it was a case of which had the greatest potential ability. The mate hesitated and finally took Toomey, the other drunk. It was the poorer choice he made, I thought, as I liked the looks of the youngster, Johnson, best, and I did not like to see him go to starboard; but perhaps Mr. Elder thought he had had the best of it before, and didn't want to handicap the second mate too much.

This formality being over and it being then nearly five-thirty, we of the port-watch were sent below for supper, while the starboard watch swept up the deck aft until relieved at six for their supper and two hours below until eight o'clock when they would have to come on deck for the first sea watch until midnight, for it was the custom for the "Captain to take her out" (the second mate having the captain's watch), while the "Mate brings her home," the port watch taking the first sea watch on the homeward passages.

It seemed good to get into the foc's'le again and get thawed out over a pot of tea and a supper of hash and bread. The donkey boiler had warmed up the compartment until it was fairly comfortable. A pipe of tobacco completed our half hour relaxation, while the slight list of the deck and the easy motion of the bark as she lifted over the gradually increasing seas made it seem good to be at sea once more, in spite of all that I knew lay before us in the long months ahead.

When we came on deck at midnight for our first sea watch, we found the mate there before us, as should always be the case if an officer has any pride in his job, and the skipper also was up, in conversation with Mr. Elder. The Old Man had evidently stood the watch, not knowing the capabilities of his second mate, who had never been with him before. It was breezing up hard again, and the sea was making up as we got off shore, the wind blowing the crests off sharply as they curled over, and every now and then a sheet of spray would fly over us from the weather side amidships, where the bark was low.



Bill Sykes "resting" when out of sight of the mate

As soon as the watch was mustered, and before the starboard watch went below, the mate ordered in the to'gal'n sails and mizzen topmast-staysail. So we manned the clewlines and let go the halyards, while both watches were on deck, and hands were sent aloft to furl the sails. As it was my wheel I was sent aft to relieve Sykes as soon as the sails were clewed up, and got the course, E by S, from him, with the remark,

"You got to watch 'er sharp to keep 'er on. She's a bitch in this quartering sea. The O. M. 'e's been givin' me 'ell my 'ole trick."

He was glad to get away, but as I felt the spokes of the wheel in my hands again and got the feel of her after a few turns, I had a feeling of exhilaration which comes from no other thing. She did not steer hard if you knew how to catch her in time as her stern lifted to a big comber as it rolled under her counter, and then met and checked her as she swung back. Bill wasn't used to the feel of a sailing vessel, that was all, for I found her as sweet a steering ship as one could ask. Above me reeled the tall masts, with their sails outlined against the darkness and the naked spars above them decernible against the star-studded sky, while the taffrail log spun audibly from the rail behind me, for she was doing over 11 knots. The mate came aft from time to time and peered into the binnacle, always dropping on me when she would take a yaw, so as to catch me off my course, but beyond a "Keep her steady, there," or a "How does she head, now?" he let me alone, and I was really sorry to be relieved by Hansen at four bells.

We had a fine and uneventful run off the coast, our nor'wester lasting for three days. I overheard the Old Man tell the mate after his noon sight the second day that we'd done 252 miles from Boston Lightship, in 24½ hours. That was good sailing, deep as we were in the water. When bound down for the South Atlantic ports or around Cape Horn or Cape of Good Hope, sailing vessels stretch well across the Western Ocean to the longitude of the Azores before turning south in order to make a fair wind of the northeast trades when they are picked up, and Captain Hagen of the *Hermes* followed this course in spite of the fact that the Azores were in a submarine zone established by Germany, and "subs" were known to be operating off there that winter. But I guess the skipper figured the ocean was large and the "subs" few, and that he'd sooner take a chance with them than face the certainty of head winds if he struck right down for the trades from Boston. Anyhow, that's the course we followed, and, of course, we all knew it forward in spite of the fact that the officers never told us the position of the ship. But Jack, the cabin mess boy, a youngster of about 16 years, overheard a lot at the cabin table, where he

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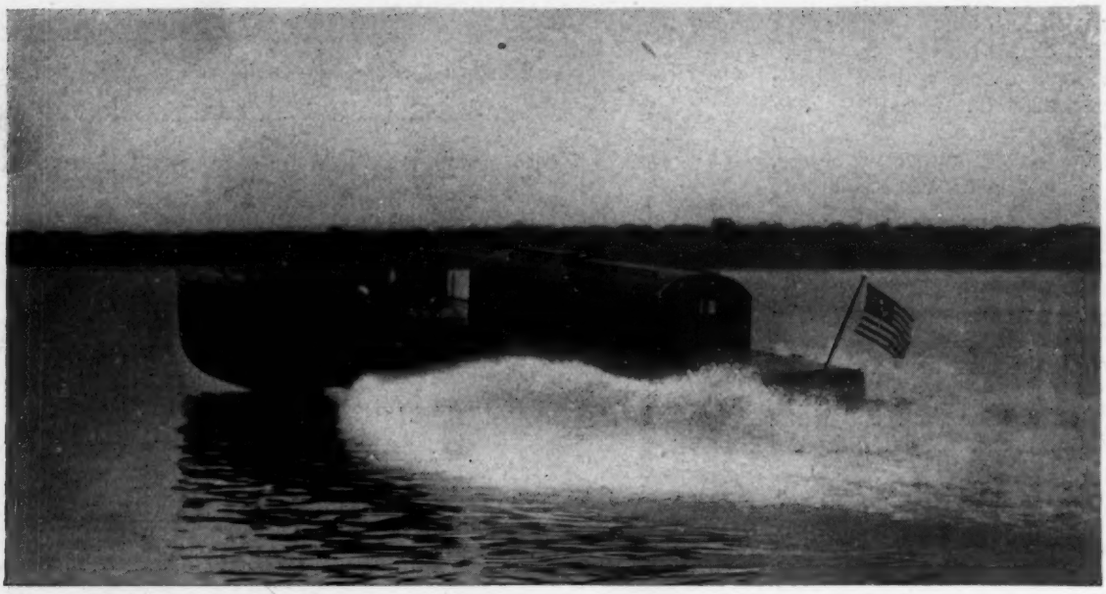

The *Mary K* is a very unusual 40-footer. Designed for express service, her arrangement affords ample protection in all weather. Her speed is 36 miles per hour, and she is owned by Mr. John H. Kunsky, of Detroit

Mary K, A Novel High Speed Cruiser

ONLY a few years ago the statement that it was impossible to combine speed and comfort in motor boats was generally accepted. Now it has been proved wrong, and we are getting accustomed to seeing high speed cruisers passing with ease the fastest runabouts of only two years back.

One of the latest developments of the new super-speed cruisers, is from the board of John L. Hacker, N. A,, of Detroit. This boat, which is known as the *Mary K,* was recently launched by the Hacker Boat Company, for Mr. John H. Kunsky of Detroit. This extremely rakish craft is 40 feet long over all, with a beam of 9 feet, and is powered with two six-cylinder 200 H. P. Hall-Scott marine engines, driving twin screws, which give her a speed of 36 miles an hour.

The general design of the hull shows the V-bottom type carried out to a high degree of refinement. The forward sections have a very pronounced flare, and the stern sections have an exceedingly graceful tumble home. There is none of that "boxy" appearance that disfigures many V-bottom boats. In fact, when the boat is at rest, she resembles the conventional round bilged type at its best. The workmanship throughout is excellent and quite up to the high standards of the builders. Careful attention has been given to the minutest details and to installation of the twin engines, controls, and fittings.

The arrangement of the forward cabin is shown in the plan but provision is made for the extension of the rear seat so that it forms a double berth, which may be used in an emergency. The windshields in the forward cabin are after the latest automobile practice and are supported by quadrants. These windshields give excellent ventilation to the cabin, being adjustable.

It is worthy of note that the seats in the forward cockpit are so elevated that one sees all around, as in a runabout.

Easy access to the after main cabin may be had through folding doors at the rear of this cabin and through a sliding hatch to the railed passageway above the engine room. The engines are installed under hinged hatches at either side of this passageway and are very easy of access. Particular attention has been paid to the ventilation of the engine room and there are substantial watertight bulk-

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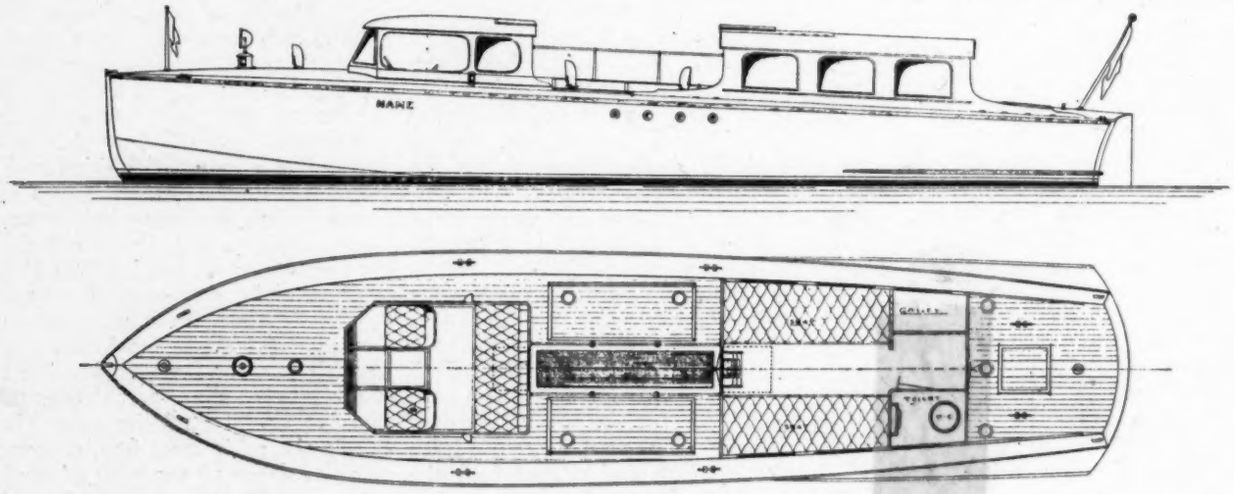
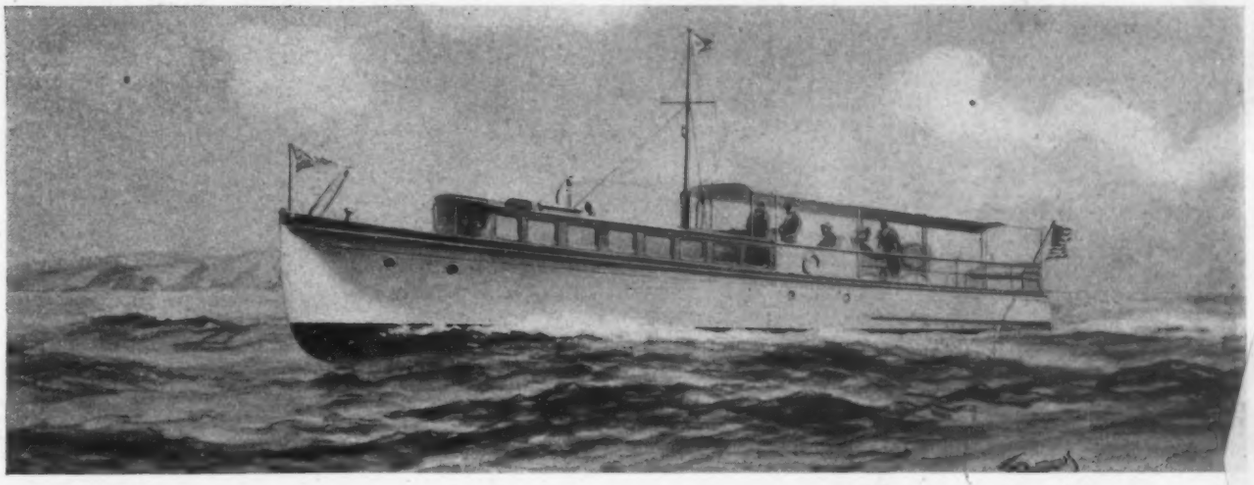


Plans of a noval high-speed cruiser



In having a new 62-foot high-speed cruiser built, Mr. Harrington F. Walker, of Detroit, laid down conditions that produced an unusual and very interesting craft. She is a combination cruiser and day boat with plenty of room on deck and excellent accommodations below, while she has a maximum speed of 27 miles per hour

A 62-Foot Combination Cruiser and Day Boat

A SOMEWHAT unusual and interesting problem in the creation of a boat that could be used chiefly for day cruising, but which at the same time would be so seaworthy and safe, and have sufficient cabin accommodations to permit of extended trips to the Georgian Bay district of Lake Huron for fishing, was recently put up to the Great Lakes Boat Building Corporation, of Milwaukee, by Mr. Harrington F. Walker, a well-known Detroit yachtsman. This cruiser was to have a maximum speed of 27 or 28 miles an hour, and a sustained cruising speed of 25 miles an hour.

This boat is now being built, and as evidence that the problem was solved in a successful manner the design of Mr. Walker's 62-footer, which has been named *Pam*, is shown herewith. That the builders have combined seaworthy qualities with all the advantages of a day cruiser, may be seen from the boat's lines and in the provision for light and ventilation in the main cabin, as well as in the extensive bridge deck space which permits of the accommodation of a large number of guests. The forward end of the main cabin trunk is built up solidly and fitted with ten-inch heavy portlights.

Inasmuch as Mr. Walker would not consider carrying his special 14-foot power tender on deck or outboard on davits, it was necessary to make provision to carry it forward in such a way as not to obstruct the view from the bridge or mar the appearance of the boat. The plan was finally worked out so that the tender could be housed on the starboard side forward in a space let in alongside the trunk cabin, the elevation of the tender not coming above the cabin trunk. The result of this arrangement is such as to make the 62-footer a striking looking boat either from the port or starboard side, and at the same time give the owner a serviceable tender that has a speed of ten miles.

The arrangement plan contemplates crew's quarters forward with accommodations for two men, followed by the main cabin with four double Pullman berths, a large lavatory with shower bath, fully equipped galley, unusually large locker space, fishing tackle compartments and an extensive bridge and after deck 25 feet in length. The interior is to be done in mahogany throughout, and the furnishings and equipment will be the finest that can be had.

The power plant decided upon, consists of two six-cylinder GR Sterling engines with underwater exhaust, and all controls carried to the bridge deck for one-man operation. The mechanical equipment also includes a ¾-k. w. lighting unit, together with motor-driven bilge pump, motor-driven fire and fresh water pump, and an automatic water pump designed to keep con-

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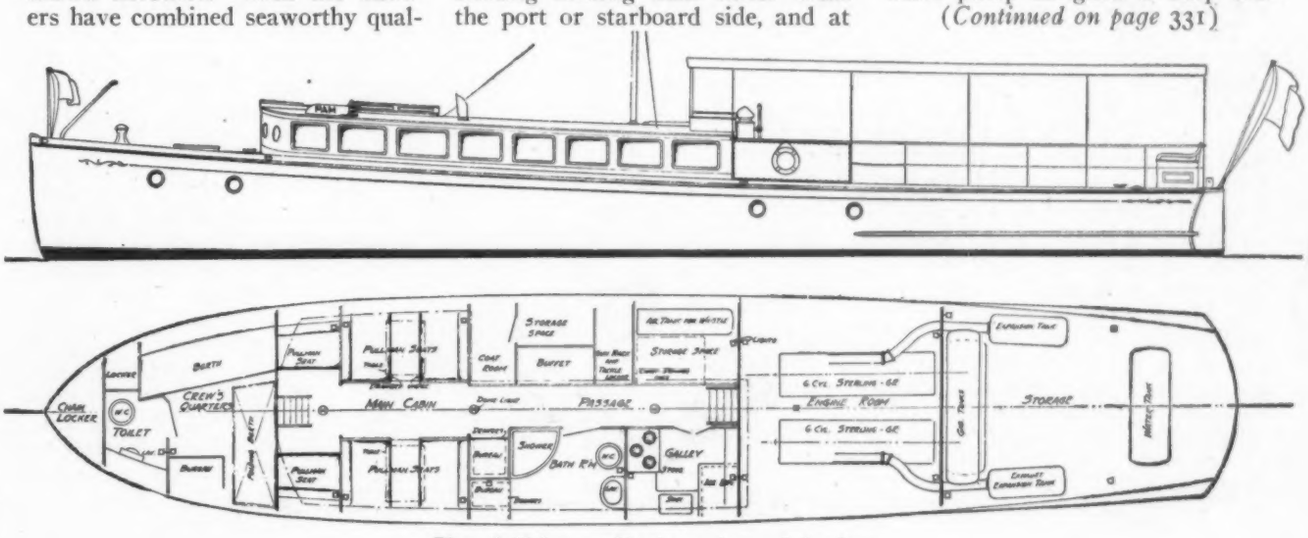
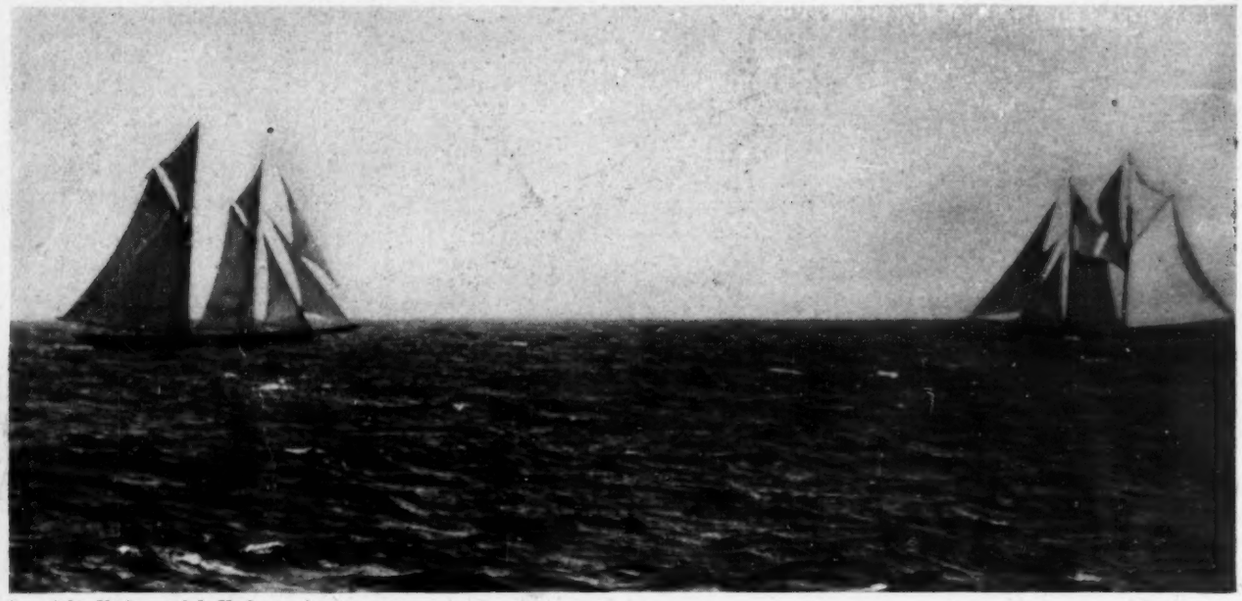


Plan of 62-foot combination cruiser and day boat



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***Esperanto* and *Delawana* in the first race for the International Fishermen's Championship. *Esperanto*, at the left, has just turned the mark and hauled on the wind, while *Delawana* is going down for the mark carrying maintopmast staysail**

How Esperanto Won the Fisherman's Race

By GEORGE STORY HUDSON

THE massive trophy emblematic of the championship of the United States and Canadian fishing fleets, as well as a cash prize of $4,000, was won by the Gloucester salt banker *Esperanto*, when she took two straight races in the series which began October 30, over a 40-mile triangular course off Halifax Harbor, Canada. The first day she finished approximately 18 minutes 30 seconds in the lead, taking about six hours for the 48 or 50 miles actually traversed and, on the second day she was 7 minutes 15 seconds ahead. These figures, while significant, do not tell the full story of the great race.

The *Delawana*, of Lunenburg, also a salt banker, was the challenger, this schooner having defeated nine vessels of the Canadian fleet, Oct. 11, in connection with a commercial carnival, at Halifax, the *Delawana* finishing about four minutes ahead of the *Gilbert B. Walters*, hailing from Lunenburg. A few days later a challenge was sent to Gloucester, and W. H. Dennis, publisher of *The Halifax Herald* and *Evening Mail*, set about raising a $5,000 purse by popular subscription, of which amount $1,000 was for the loser. The wide-awake publisher also provided the cup.

The "defi" was taken up by B. A. Smith, representing the Gorton-Pew Fisheries Company, of Gloucester, one of the largest concerns of its kind in this country. Laid up at that port was the *Esperanto*, only out-and-out schooner available, because most of the two-stickers now have auxiliary motors. The *Delawana* is not equipped with motors and, like the *Esperanto*, was designed for propulsion by sail. It may be said in passing that orthodox sailing craft are few and far between these days out of Gloucester, Boston, Provincetown and the Canadian ports that find their harvest in the sea. Thus, "Bluenose" and Yankee contender are thus typical of a particular and important branch of the industry. The rules governing the match specify that the schooners must have spent at least a year on the offshore grounds—and a salt banker's quest lies hundreds of miles in the open with trips dragging into months away from port.

Unquestionably, the *Esperanto* and *Delawana* are stout and able, being honest, wholesome in any condition of weather and, withal, handsome to gaze upon. The Gloucesterman carried about 2,200 square yards of sail, or some 200 yards more than her rival, the cloth being disposed between mainsail, foresail, jumbo, jib, jibtopsail, working gaff topsails and that huge blanket called a maintopmast staysail. The skipper, also, must have had at least a year's experience on the banks and the crews, 25 each, had to be all bona-fide fishermen.

It is obvious, then, that this contest featured real vessels and regular men; nothing of the toy boat and summer sailing about it. The sails were of strictly commercial canvas, the lowers of the *Esperanto* being of No. 0, and so heavy that 10 men are needed to furl the mainsail in summer, while it takes 20 to fist it when stiff with ice and sleet. The *Esperanto's* sails were four years old and those of the challenger were not much newer. The time limit was fixed at nine hours.

It must be borne in mind that the victorious Yankee is by no means of recent design, having been built at Essex, Mass., from plans by the veteran "Tom" McManus, by A. D. Story, 14 years ago, Story having upwards of 100 fishing vessels to his credit. She is built of oak and is of the so-called semi-bowsprit type. Her length overall is 107 feet, beam 25 feet and draught 14.6 feet. It is interesting in this connection to note that many successful American fishing schooners really are composites, based on McManus lines with different spacing of molds prepared for some other craft. This method is much in vogue

among the Essex builders (and elsewhere, for that matter), when a skipper desires something a bit different from a certain vessel.

The *Delawana*, on the other hand, is a soft wood vessel, and was designed by G. A. Rhuland, and built by Smith & Rhuland, at Lunenburg, in 1913, being 106 feet over all, and 13 feet draft. She is divided into 64ths and the largest holder is Capt. Thomas Himmelman of Lunenburg, who sailed her in the series, W. C. Smith & Company of that port being the outfitters. A soft wood craft has spruce planking, and the frames are of maple and spruce with hackmatack floors, if the latter wood is available. Under ordinary use a craft like the *Delawana* is good for 12 or 14 years before needing an extensive overhauling. Oak is scarce in Nova Scotia, which explains why soft wood is employed. Again, labor is cheaper than in Essex and at least two schooners like the challenger could be built formerly for what the *Esperanto* cost.

There is a marked difference between the challenger and her rival and this dissimilarity had much to do with final results. The *Esperanto* was designed for quick trips to and from the grounds and her underbody is sweet and easy. On the contrary, the Canadian's design is more that of a cargo carrier, being full aft and with not much deadrise. She drags the sea behind her till it cockles while the Gloucesterman leaves the water all ironed out. The *Delawana*, although her tonnage of 91 net tons is about the same as that of the *Esperanto*, can carry more deadweight, being intended to transport dried fish from Nova Scotia to Portugal, South America or the West Indies, during the off season for fishing, and that's usually in the winter time. But the *Esperanto*, too, can handle a big cargo Once she took from Bay of Islands Newfoundland, to Gloucester, 300,000 pounds of herring under hatches and some 200 barrels of herring on deck. Thus it may be seen that net tonnage as applied to a fishing vessel ofttimes is quite deceiving.

As for the actual race there was nothing to it but *Esperanto* on Oct. 30, the first race. The wind was brisk from the west, two-thirds the course being a lay, reach or run. Off the wind the challenger did very well but was constantly being left behind. The thresh to windward took place in a breeze that at its height attained a velocity of 25 to 30 miles an hour with considerable punch to it and with a long, old swell and considerable chop. The *Esperanto*, being fine forward, walked like a lady, climbing out in wonderful fashion, working within nine points, while making her course good. But the *Delawana* slammed into and bruised the sea, showering herself with spray, which drenched her oil-skinned crew, and was unable to go where she looked. At a distance of a mile it was difficult to distinguish between the contenders, their overall length being practically the same, each with a short bowsprit and very little difference in tophamper. Yet the white water flung by the *Delawana* easily identified that vessel and she did not take on as much list as the *Esperanto* because she was the more heavily ballasted.

"Marty" Welch, skipper of the *Esperanto*

"Tommy" Himmelman of the *Delawana* may not look like a racing skipper, but he is there with the goods on a fishing schooner

Speaking of ballast, it is worth while to tell what happened immediately the first race was finished. The challenger, it seems, had 140 tons, mostly rocks, and not secured by the customary platform and stanchions against shifting. Stone walls of Lunenburg, that for generations marked the bounds of ancestral holdings had been hauled to the waterfront by oxen to ballast the schooner in the effort to secure best possible trim. But the *Esperanto* carried only 100 tons of ballast, comprising pig iron, boiler punchings bonded with cement, suitably floored and immovable no matter what the angle of heel. This practice is common with Gloucester vessels, and has saved them from foundering countless times when hove down.

Well, it dawned on the Canadians that the challenger should be lightened, otherwise there wouldn't be the ghost of a show of winning. In fact, Capt. Himmelman admitted that the Yankee was much the faster. Nevertheless, the Lunenburgers determined on drastic measures which called for removing all the ballast from the *Delawana* and a swept hold. They then stowed some 60 tons of chain, loaned by the Government, and tipped her slightly by the head to lift the bulky quarters. When they started to remove weights the schooner was three inches below her painted waterline. Under her new trim she was out 14 inches aft, and 10 inches forward, naturally presenting a wealth of freeboard, with waterline shortened approximately three feet. This herculean task was performed by the crew, who toiled most of a day and night, and thus entered the second race in by no means tiptop condition.

It was no use, however, when the wind freshened on the windward leg of 11 miles, although the *Delawana* was more than a match for her rival with started sheets in light airs and smooth water. When the course had been half traversed she was more than a mile in the lead, but this gain was wiped out in a few minutes sailing after the *Esperanto* found herself, on the windward leg, thanks to a stiffening northeaster, bringing a stinging rain with it. They had sacrificed too much stiffening, the Lunenburgers staking their all on a moderate day. It should be noted, too, that the schooners were

considerably watersoaked and, by that token, loggy. There had been no time to dry out and the underbodies were not a whit smoother than it was possible to get them under the few short hours ordinarily alloted to cleaning and painting with preparations generally employed for that purpose. The *Delawana*, perhaps, was in better condition. Therefore, greater is the glory for Capt. "Marty" Welch, the *Esperanto's* skipper.

This championship race appears destined to become a classic and has aroused intense interest all along the North Atlantic seaboard. It will stimulate the building of fast sailers along altogether wholesome lines and may materially change methods now obtaining in the fishing fleet. Already word comes that Lunenburg will build for next year's race. There are to be elimination trials for this in Canada as well as here.

The international committee in charge of the recent series comprised H. R. Silver, chairman, A. L. Millet, H. G. DeWolf, Capt. Daniel Zinck, R. A. Corbett, H. G. Lawrence, Mayor Parker of Halifax, W. J. Roue, Andrew Merkel, F. W. Baldwin, and W. H. Dennis. The Royal Nova Scotia Yacht Squadron's course for large vessels were available This is as follows:

From starting line (breakwater in harbor), 6.4 miles to inner automatic, leaving buoy to port, thence S. E. 1-2 S. 6.5 miles to S. E. automatic, leaving buoy to port, thence N. E. 3-4 E. nine miles to Shut In Island bell buoy, leaving buoy to port, thence W. 1-4 S. 11.5 miles to inner automatic, leaving buoy to starboard, thence north 6.4 miles to finish line. Distance 39.55 sea miles.

The official time of the vessels in each race were:

FIRST RACE, OCT. 30

Start	
Delawana	9.00.40
Esperanto	9.01.07
Inner Automatic Buoy	
Delawana	9.35.10
Esperanto	9.35.22
Outer Automatic Buoy	
Esperanto	10.14.50
Delawana	10.17.54
Shut In Island Bell Buoy	
Esperanto	11.01.15
Delawana	11.07.09
Inner Automatic Buoy	
Esperanto	2.17.35
Delawana	2.39.00
Finish	
Esperanto	3.01.03
Delawana	3.19.28

SECOND RACE, NOV. 1

Start	
Esperanto	9.00.55
Delawana	9.01.10
Inner Automatic Buoy	
Delawana	10.16.20
Esperanto	10.20.21
Outer Automatic Buoy	
Delawana	11.27.50
Esperanto	11.32.42
Shut In Island Bell Buoy	
Esperanto	1.20.12
Delawana	1.18.00
Inner Automatic Buoy	
Esperanto	3.12.47
Delawana	3.13.09
Finish	
Esperanto	4.35.20
Delawana	4.42.45

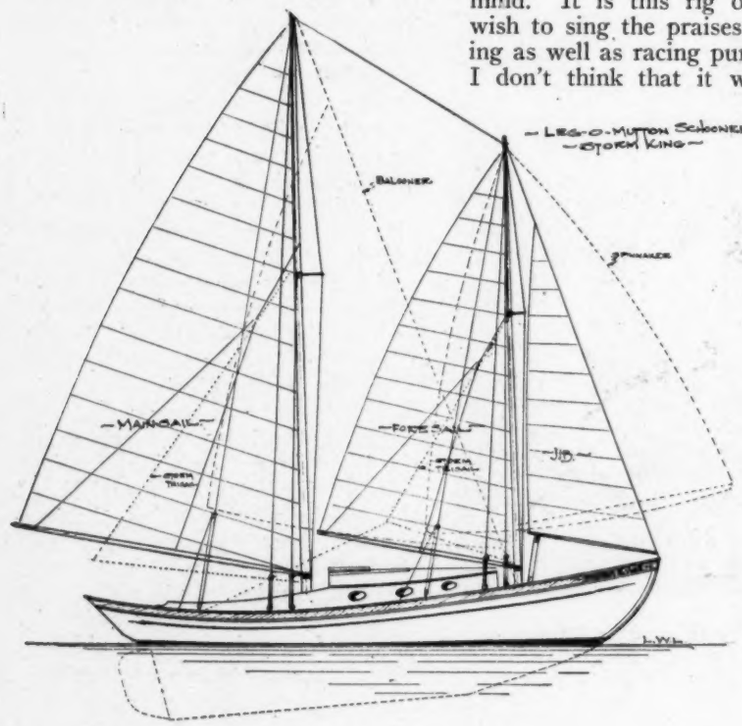
This table of the last race shows how *Esperanto,* way behind and seemingly a beaten vessel, came up on the windward leg and caught and passed the challenger in this 9-mile thresh, beating her by 7 minutes and 8 seconds on the leg.

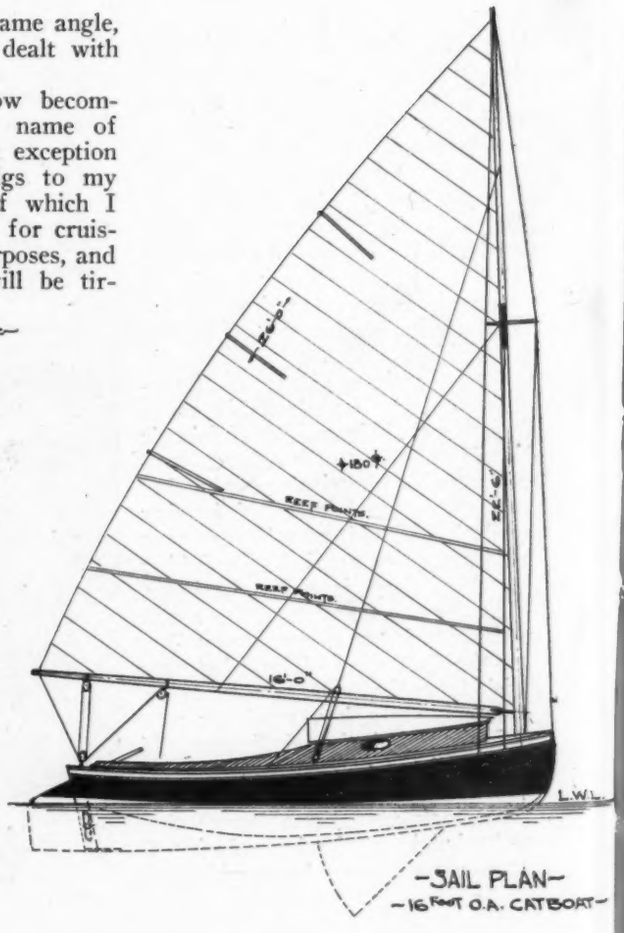
Some Single-Handed Cruising Rigs

By S. S. RABL

QUITE a lot has been written on the single-hander—so much, in fact, that one will often pass by such a heading as this article possesses without reading it. Yet I doubt if any of the previous articles have approached the subject from quite the same angle, because they have not dealt with the same kind of rig.

The leg-o-mutton, now becoming popular under the name of Marconi rig, is without exception the peer of cruising rigs to my mind. It is this rig of which I wish to sing the praises for cruising as well as racing purposes, and I don't think that it will be tir-





ing. First, the leg-o-mutton has most of the advantages of the gaff rig and quite a few of its own besides, while it has none of the disadvantages of the latter rig. I don't wish to condemn the gaff rig or waste space in telling all its disadvantages, which are well known by those who favor it most, but rather I wish to review briefly the advantage of the rig I am about to describe. And bear in mind I am referring to rigs for cruising boats, without the extreme in this type that were developed on racing boats this year.

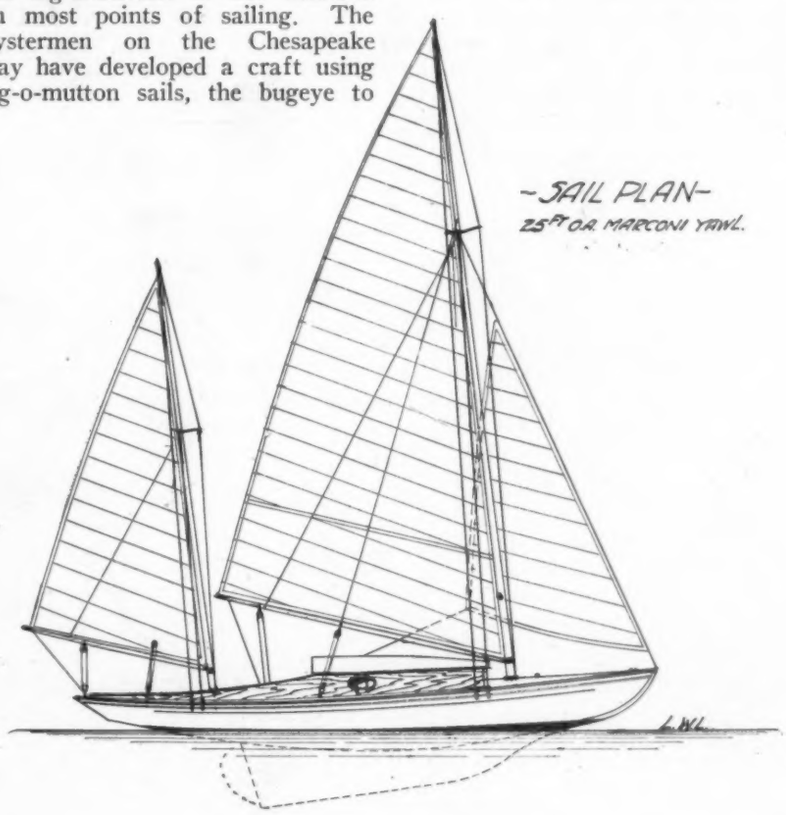
The greatest advantage that the leg-o-mutton possesses is the ease with which it is handled. The smaller types are hoisted with a single halyard and only a single purchase, the larger ones with a pennant, which sometimes requires a three-fold purchase. Have you ever hoisted a big gaff-headed mainsail when seas were running high and the boat was lively;—a little on the throat and a little on the peak, one at a time? Would you have appreciated then a single halyard, where you could haul and haul until the entire spread of your canvas was up, without stopping once to belay? Then why not a leg-o-mutton for this reason alone?

The efficiency of a sail plan is one that counts quite a bit nowadays, and no one will say that the leg-o-mutton is not efficient. on most points of sailing. The oystermen on the Chesapeake Bay have developed a craft using leg-o-mutton sails, the bugeye to

SAIL PLAN & OUTBOARD PROFILE
24'-0A. LEG-O-MUTTON SCHOONER.

wit, which is the fastest boat of its size, bar none. It is not an uncommon sight to see an old oysterman foul from a season of tomato running, slip past some of the crack boats of our yachting fleet and, size for size, the difference in sail area will generally be found to favor the yacht.

This rig is also the peer of "white water" rigs. Heeled, it spills the wind easily, making it very hard to force a boat on her beam ends and at the same time causes no undue strain on the spars or rigging. In a jibe there is no gaff to slat around, though the boom has a tendency to cock, and going about they act handsomely.

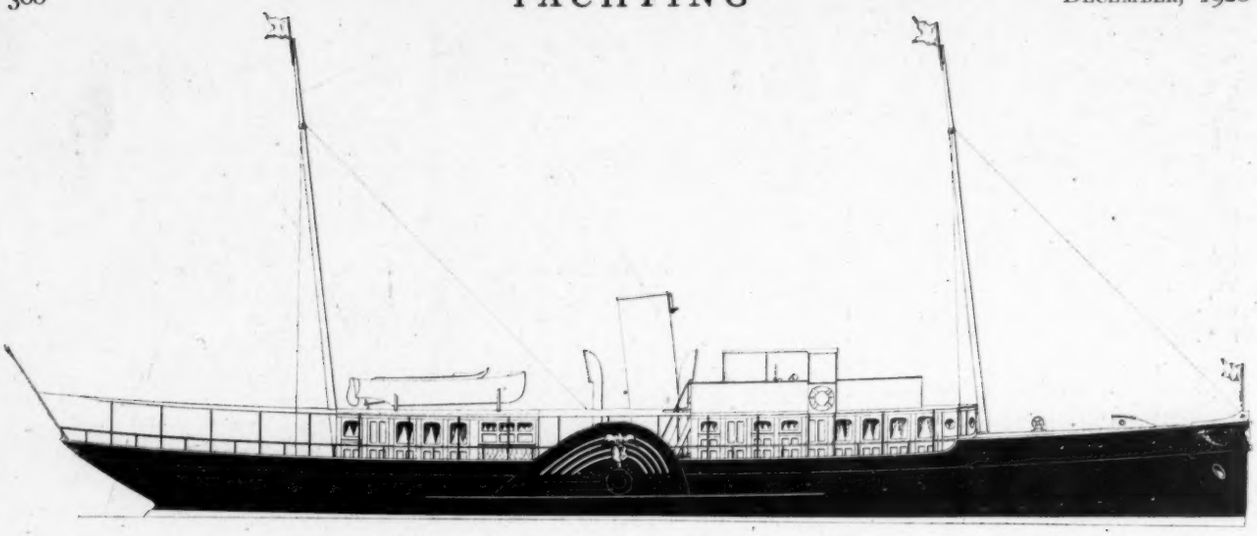


The sketches accompanying this article show the many forms in which the rig may be used on cruising boats, but of all of them I prefer the schooner type, shown in first sketch. This boat, a thirty-footer, could be easily handled by one man and has her sails so divided that reefing would be necessary but seldom. In fact with the storm trisails shown it would not be difficult to handle her alone in any blow that one would be likely to meet on any of our coasts.

The bugeye rig, not shown here, would be my next choice. While not possessing the yachty appearance of the schooner type it has all of its advantages and is an old and tried rig.

The other diverse types shown in the drawings are all good ones, and some of them may find more favor in the reader's eyes than in mine, but if one intends to go cruising, leave the gaff behind and try the leg-o-mutton. You will be well repaid for the cost of conversion by the many advantages of this rig, and the extra weight of the mast is more than offset by

(*Continued on page* 331)



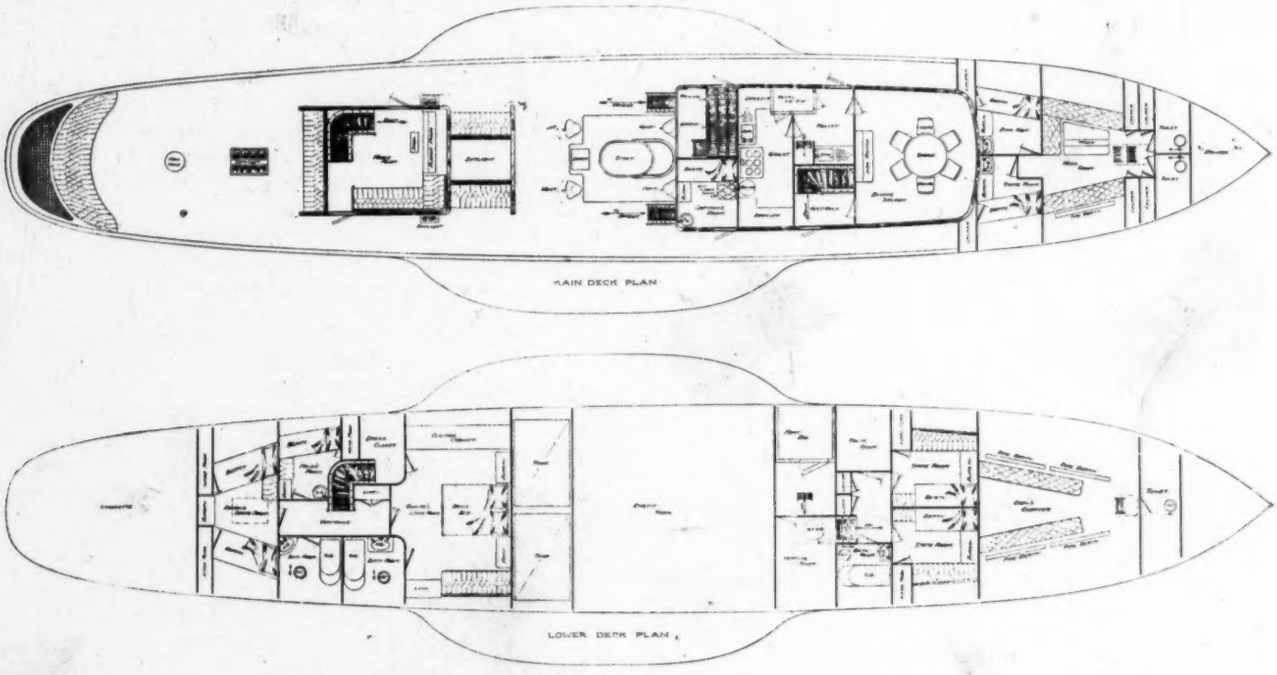
The Plans of a Side Wheel, Shallow-Draught Motor Yacht

THE plans of one of the most interesting and novel types of boat that have come to us in some time are reproduced herewith. They show a preliminary sketch for a 125-foot over all shallow-draught power yacht designed for use on the upper Hudson River, where there is a good deal of shallow water and weeds, and for trips on the canal to Lake Champlain and the St. Lawrence. The design is by the Luders Marine Construction Co., of Stamford, Conn., and the boat is modelled somewhat after the Clyde river steamers, only with the refinement necessary in a yacht. These Clyde steamers are particularly well adapted for river operation and for making landings.

There are many advantages in a boat of this type, one being that the owner's living quarters, much of which are in the superstructure, get plenty of light and ventilation, while the beam, which is generous, allows of very large compartments. Another thing is that the paddle wheels, which are feathering, are not apt to be bothered by weeds as a propeller would be.

Many of our readers will remember the old side wheel steam yacht *Claremont* of a dozen or more years ago. She was a very successful yacht for the purposes for which she was designed, but this present boat differs from the *Claremont* in that, instead of being powered with steam, her power plan will consist of two 125 H. P. Winton Marine Engines. These engines will be geared to separate shafts, each driving one paddle. The plans for the power installation are very carefully worked out and are extremely novel. The accommodation plans show how well the boat is laid out and how much room there is in her.

Her principal dimensions are: length over all 125 feet, length load water line 116 feet, extreme beam outside of paddles 30 feet 6 inches, draught 4 feet. It is refreshing to see something out of the conventional once in while, to meet peculiar conditions.



Accommodation plans of the 125-foot shoal draught, side wheel yacht

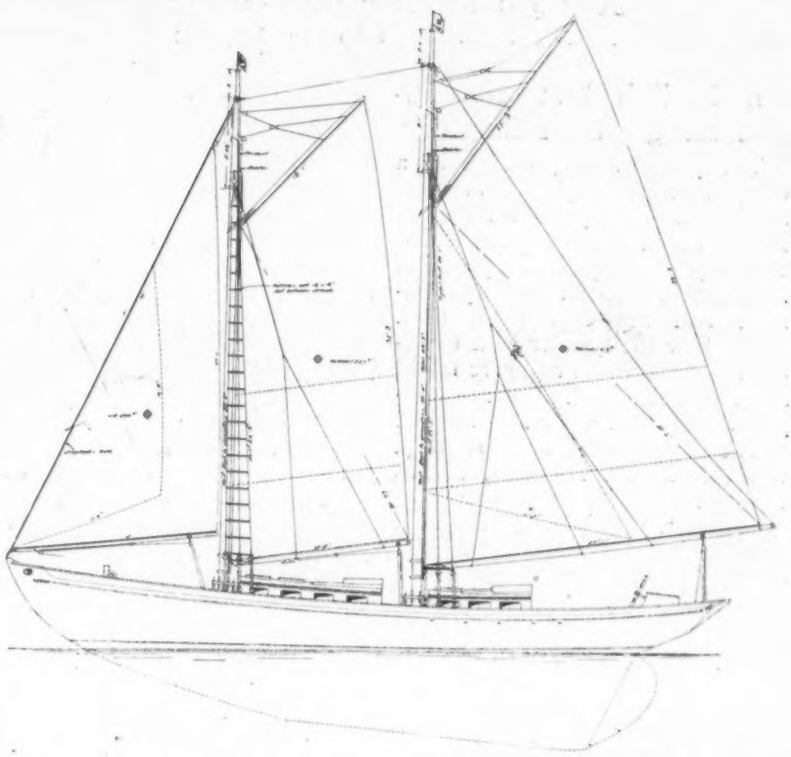
A 40-Foot Waterline Auxiliary Schooner

THE plans of a new schooner which we publish here, from designs by Wm. H. Hand, Jr., of New Bedford, for Mr. Francis Minot of Falmouth, Mass., warrant more than ordinary consideration as they are the result of careful development of a type in which the designer believes will be found the ultimate cruiser for the average man who likes real cruising on deep water.

The new schooner is to be called *Ariel,* formerly the name of a famous clipper ship owned by Mr. Minot's grandfather that sailed in the East India trade.

The new *Ariel* is a sturdy little schooner of the fisherman type very similar in lines, rig and arrangement to Mr. Hand's well-known schooner *Whistler.* The sail plan shows a snug knockabout rig of good area and the arrangement below decks provides excellent sleeping accommodations for eight, one man in the forecastle, five in the main cabin, and two in the after cabin, which is also the motor room. The toilet is located between these two compartments, and the galley is just forward of the main cabin. This arrangement is practically identical to that used in the *Whistler,* and is a plan which has been found most satisfactory for average purposes. It provides a good forecastle, a very convenient and roomy galley, splendid main cabin and a most unusual motor room, which is so arranged that it is really an after cabin in addition to being a motor room.

The power plant is to be a Model FH4 25-55 H. P. Sterling, installed with electric lighting and starting—a motor which has been found so clean that its presence does not detract from the usefulness of this compartment for living quarters. The speed under power will be about nine nautical miles.



The *Ariel* will have generous deck room as the two trunks indicated are small and narrow, there being alley ways 4 feet wide between trunks and the rails, which are 12 inches high. There is no cockpit, the boat being really flush deck. The construction is unusually husky, as there are heavy double-molded sawn frames and 2-inch planking and decking. The dimensions of the yacht are:

Length over all 53 feet 6 inches, waterline 40 feet 9 inches, beam 14 feet, draft 7 feet 3 inches.

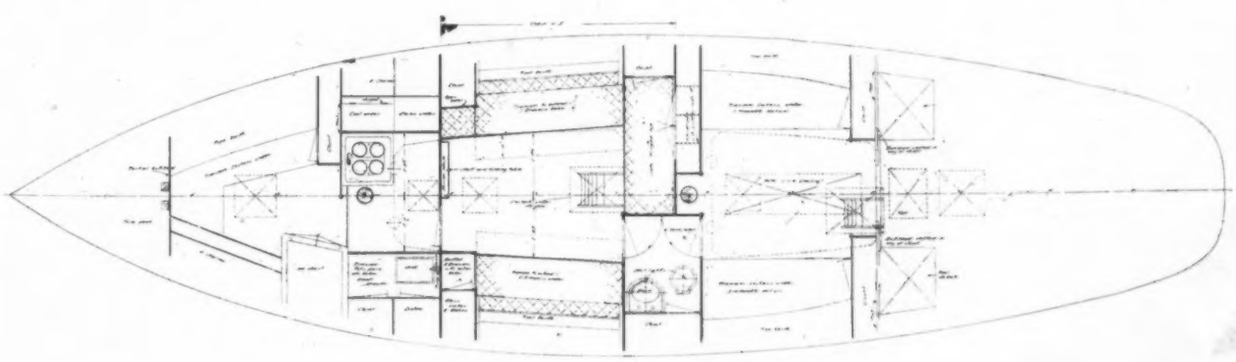
The *Ariel* will carry about 12 tons of ballast, ten tons inside and two tons cast iron on keel. She is being built by Hodgdon Bros., of E. Boothbay, Maine.

Los Angeles Athletic Club Goes in for Yachting

A yacht club house and yachting harbor on the Pacific Coast that will cause the whole yachting world to "sit up and take notice" is the aim of Frank A. Garbutt and other boating enthusiasts, in working for a new Los Angeles Athletic Club Yachting Annex, to take care of the boat-owning members of that flourishing organization.

At a public hearing held in the City Hall on November 13, the Harbor Commission granted the application of the Los Angeles Athletic Club to lease an area opposite Terminal Island. The Commission announced that it would set aside 4,500 feet frontage. Mr.

(*Continued on page* 331)



Accommodation plan of Hand 53-foot schooner

What the Model Yachtsmen Are Doing

A Department Devoted to the Development of Power and Sailing Model Yachts and to the Organization of that Branch of the Sport

An English Restricted 10-Rating Model Yacht

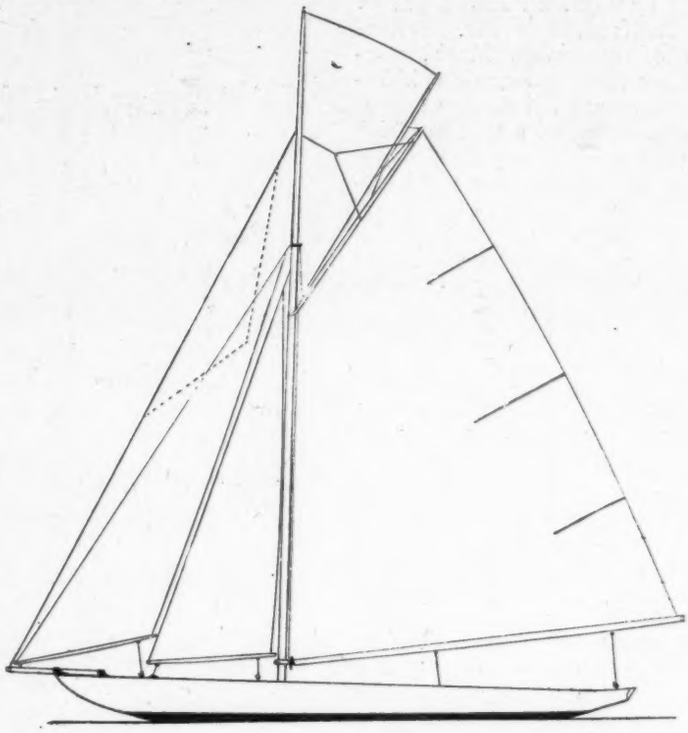
The prize-winning design in a competition recently held in England for a model yacht for the 10-Rating Class, which appears in the *Yachting Monthly* should prove of interest to American model yachtsmen, and are reproduced here. They show the type of boat developed under the rule and give model sailors on this side a chance to compare this boat with our own models.

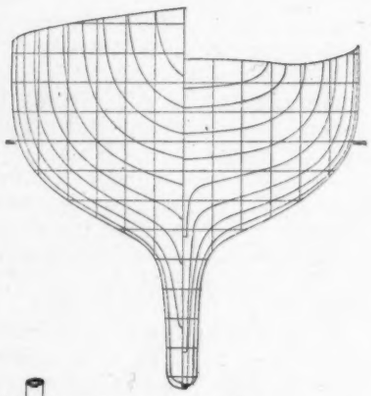
The dimensions of this boat, which is named *Absolute,* are as follows:

L. O. A., 53.3 inches; L. W. L., 37.4 inches; beam, 11.4 inches; draught, 8 inches; displacement, 22.7 lbs.; lead in keel, 15 lbs. 13 oz.; C. L. R., 2 inches forward of section 11 (counting these from forward); C. B., 1.2 inches, aft of section 10; C. E., 8 inches forward of section 11; C. G. of lead, 1.1 inches forward of section 11., sail area, mainsail, 1,124 square inches, foresails 480 square inches, total 1,604 square inches.

The plans are carefully worked out and the hull is good, though rather fuller than is the practice here. We do not think much of the rig, and believe that some of our boats would give her a pretty race and show her the way home.

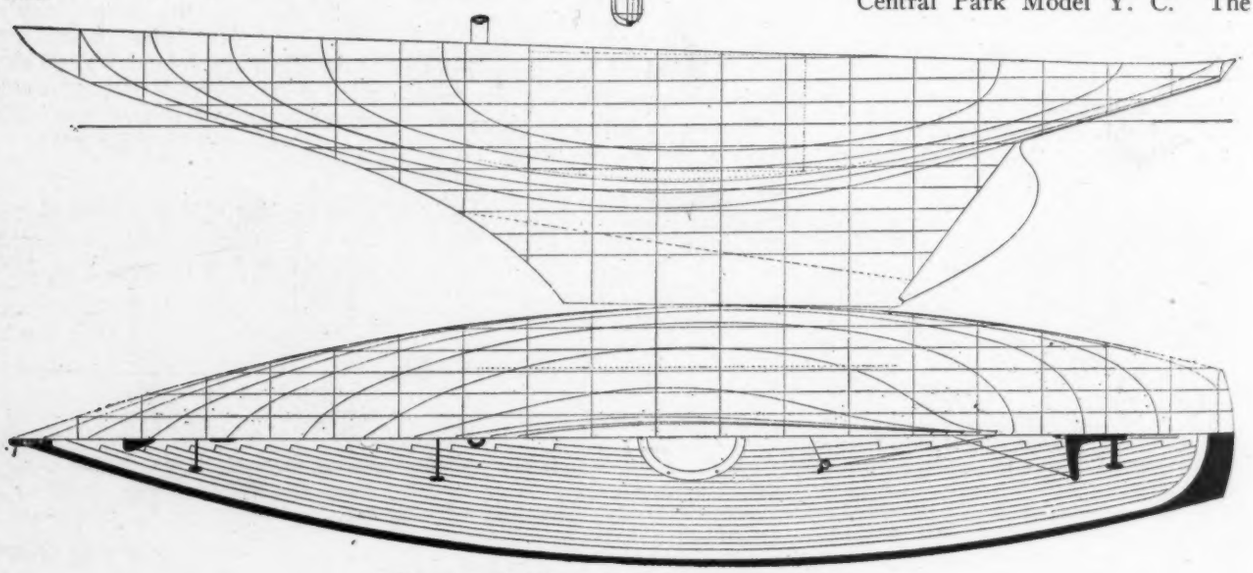
The plan is interesting to American model yachtsmen as showing the type produced under the British rule.





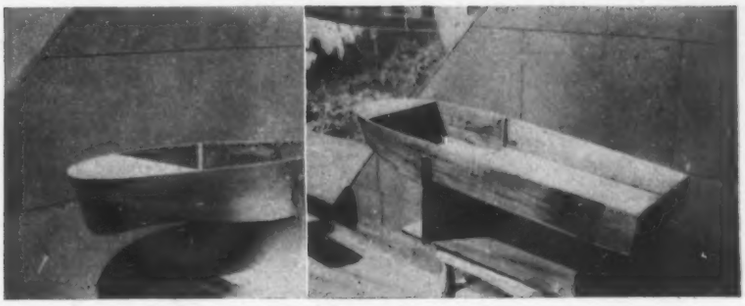
Power Plants for Model Yachts

IN reveiwing the results of the race for 15-pound displacement class model boats as reported in the last issue of YACHTING, it was the concensus of opinion of all the participants that the race itself was more instructive, and pointed the way to more specific improvements in boiler and engine construction, than anything heretofore carried out in the way of races by the Central Park Model Y. C. The



Plans of 10-rating model sailing yacht *Absolute*

Elmara VI, a 36" by 11" hydroplane, owned by J. F. Rapp. She has a 2-cylinder poppet and piston valve engine



J. F. Rapp's new hydroplane for 1921 shows a radical departure in her bow sections

majority of boilers used in that race were of the flue tube and watertube construction, that is, an outer casing, two ends, and an inner or flue tube, in which were mounted a series of smaller tubes, running at right angles to and across the flue tube, and so arranged that the flame from the blow torch entering the flue tube had to pass these smaller tubes, which, of course, were filled with water held in the outside or large shell.

It may be remembered that the winning boat, *T. N. T.*, carried a Scott type boiler, which, while having a greater or higher center of gravity, was a great deal lighter by comparison with the same size watertube boiler. This Scott type boiler is made up of a large tube, from the lower surface of which there are carried, in a semi-circular form, a series of small tubes which return to the larger tube. Outside of this construction is placed the outer casing, which is of any light metal, sufficient to return the flame from the blow torch in a path past these smaller tubes.

In getting up steam from cold water, the watertube boiler takes on an average of about 5 minutes to produce a pressure of 80 pounds, while the Scott-type boiler produces the same pressure from the cold water start in about 3 minutes. There is, too, the added advantage of easier construction in the Scott-type boiler, and there is less liability to trouble from leakage in the watertube type. When the small tubes are brazed into the flue tube, it is not always convenient to make a test of this portion of the work before placing in the boiler ends for the final welding of the outside or large tube, the ends and the flue tube. A test when all this work is finished sometimes results in leakage, where one of the small tubes is brazed in the flue tube and there is no possible way of remedying it without a great deal of work, such as cutting ends, repairing the leak and welding together again. This, of course, means a much shorter boiler when finished, due to the portion that had to be cut off to get at the inside. Whereas, a leak occurring in the Scott-type boiler, where all the brazing is on the outside and very "get-atable," merely means a new brazing job at the particular point of leak.

Engines

In the matter of engines, it was found that with the present type of two-cylinder, single-acting engines, such as were used in four out of five starters, the consumption of steam was excessive. A watertube boiler of 4 inches diameter and 10 inches in length, filled to its limit capacity, would supply steam to these engines for a maximum of 8 minutes, whereas the Scott-type boiler and the single-cylinder, double-acting engine of equal bore and stroke would supply steam for 12 minutes, the pressure in both cases being between 80 and 120 pounds per square inch. Another advantage is that of lightness, where the two-cylinder engines weighed 26 ounces as against 14 ounces for the single. No doubt the cushion effect of the double-acting type has a great deal to do with the steam consumption, and this seemed to produce, also, a greater amount of torque. The winning boat, *T. N. T.*, swung a 4-inch propeller as against an average 3-inch propeller carried by the other engines.

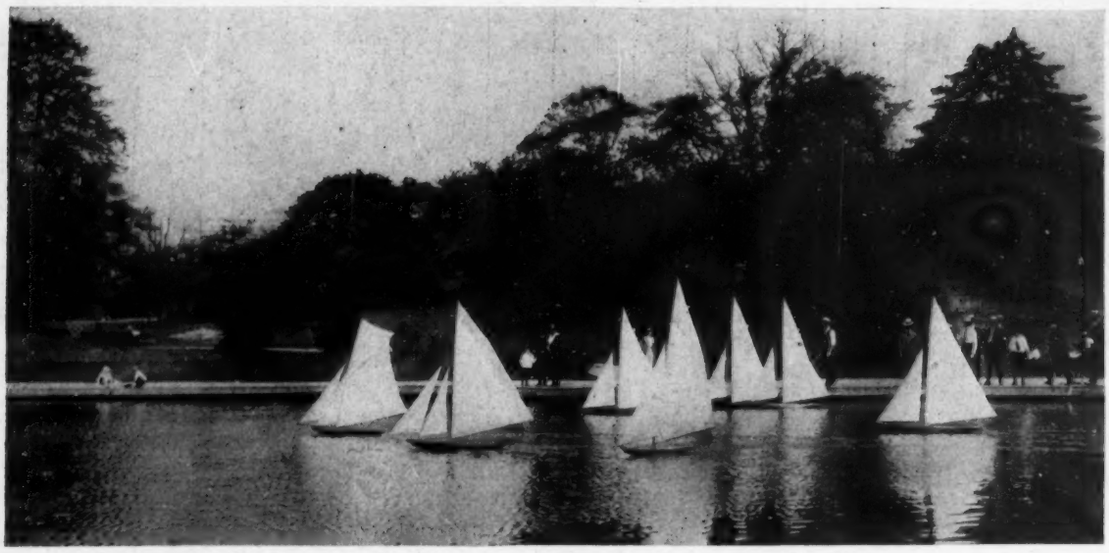
Lightness of weight in proportion to power seemed to be what the owners aimed at rather than hull form, as shown by the performance of *T. N. T.* and *Pep*, both of which appeared at the Central Park lake the Saturday following the race. This time *T. N. T.* had a two-cylinder, single-acting engine in place of her single cylinder, double-acting engine; and *Pep* had a Scott-type boiler in place of her watertube boiler and a single cylinder, ¾ inches x ¾ inches, double-acting engine in place of the extremely light two-cylinder, single-acting, ⅝ inches x ⅝ inches. Although *T. N. T.* got into trouble on account of her blow torch, still she was badly beaten by *Pep* as long as she did keep going.

The introduction into the rules for this class of the stipulation that the decks must be covered for two-fifths of their area, will, no doubt, produce some heating and ventilating engineering problems that will, at the first thought, seem obstacles difficult to overcome. This is as it should be for developing the gray matter and ingenuity of the contestants.

It might be mentioned, in passing, that all the boats participating in this race, with the exception of one, were the design and work of the members who had taken instruction in the naval architecture course given by the club.

A 39" displacement type which is being finished for next year's use

Wave formation of displacement type power boat, 1919 model



The 42-inch load water-line class of the Central Park Model Yacht Club at the starting of a race

For a Model Yacht Department

For some time YACHTING has felt that not enough was being done to encourage model yachting, both sail and power, or to organize the sport on a basis where it would be helpful to those interested in it and beneficial to yachting and yacht building at large. We, therefore, take pleasure in announcing that we shall in future devote space in each issue to this branch of the sport and have a department for the interchange of news and ideas on model yachts and model yacht clubs. Here one can see what is being done in other parts of the country in model yacht development; here the rules and regulations governing the various classes of racing models will be found and through this department steps may be taken to standardize them, as far as possible, and here all that is new and interesting in the sport will be given due consideration to the end of developing not only better models but of interesting the growing boy and the young man and creating a desire for a greater knowledge of this fascinating subject and of its relation to larger yachts and boats.

It is also our aim to help any group desiring to form model yacht clubs, and to this end any questions on this, or other subjects, may be directed to the Model Yacht Editor of YACHTING, where they will be given careful attention, and be answered in detail.

From the Atlantic to the Pacific Coast there is great interest in the building and sailing or running of model yachts. YACHTING wants to weld this interest for betterment of the sport.

The Racing Season at the Central Park Model Yacht Club

The racing season of the Central Park Model Yacht Club did not close until Nov. 28th, when the final race in the 42" L. W. L. class was sailed, the last race in the 36" class having been sailed a week before.

In both of these classes the racing was extremely close. In the 36" class, the *Imp,* owned by L. B. Battey, finished only two points ahead of F. L. Herreshoff's *Eaglet,* while in the 42" class, which is the Third Class, International Rule, the *Impulse,* owned by J. Weaver, collected a total of 135 points against 115 for the *Frances,* owned by W. Blumfield.

The standing of all the yachts in these two classes follows:

36-FT. L. W. L. CLASS

Yacht and Owner	No. Races Sailed	Total Points	No. Races Dropped	Points Dropped	Corrected Points
Imp, L. B. Battey.....	16	149	2	8	141
Eaglet, F. L. Herreshoff.	16	147	2	8	139
Alicia, S. A. Branig....	12	108	0	0	108
Triton, H. Lyon.....	2	17	0	0	17
Wasp, J. McKenna.....	1	7	0	0	7
THIRD CLASS, INT. RULE (42-IN. L. W. L.)					
Impulse, J. Weaver.....	16	146	2	11	135
Frances, W. Blumfield..	15	119	2	4	115
Sequoyah, J. McKenna.	16	112	2	6	106
Galatea, H. Griffiths....	16	110	2	8	102
Lassie, C. W. Bedell....	16	111	2	10	101
Hornet, W. DeBuse.....	15	95	2	3	92
Dauntless, F. A. Branig.	7	46	0	0	46
Duck, T. Malloy	7	27	0	0	27
* M. C. Heider....	8	27	0	0	27
Oootukukunit, J. O. Berg	2	19	0	0	19
Fly, T. H. Barrington...	2	10	0	0	10

* No name.

Altogether the season just closed was one of the most successful in the history of the club and, in addition to the racing in these two classes, the model power boat men brought out a number of new boats in the 15-lb. displacement class, an account of which will be found elsewhere.

For the past two years the sail boat division of the Central Park Model Yacht Club has been endeavoring to arrange inter-club matches in the interest of the development of the sport of model yachting. Not a great deal of success has been met with along these lines, as there appears to be a lack of incentive of members of other clubs to race among themselves for the season and then pick their good boats for racing in inter-club matches.

The coming season, however, will see, we believe, at least one good cup put up for an inter-club race, or series of races, and it is hoped that those clubs now in existence will get their members together, do some real hard racing during the season, and challenge for this cup, which will soon be officially offered.

Schooner Yacht "Lady Mary" Makes Fast Trip

The schooner yacht *Lady Mary,* owned by Mr. F. D. M. Strachan, of Savannah, sailed from Sandy Hook at 9:30 A. M. on Tuesday morning, November 23rd, and arrived at Brunswick, Ga. at 6:00 A. M. the following Saturday, November 7th, making practically the same time as the regular steamship lines. This performance of the *Lady Mary* is particularly gratifying to the owner, who has been yachting for many seasons and has owned nearly every type of pleasure craft.

The Motor Boat Show

Sixteenth Annual Exhibition of the National Association of Engine and Boat Manufacturers, Inc., at Grand Central Palace, New York, December 10-18, 1920

The Exhibitors

EXHIBITOR AND EXHIBIT	SPACE NO.
Aeromarine Plane & Motor Co., engine and plane	A 6
Albany Boat Corporation, boats	A 7
American Balsa Co., Inc., surf boards and life rafts	79 and 81
American Bosch Magneto Corp., magneters	90
Arrow Motor & Machine Co., detachable motors	F 1, F 2
Belle Isle Boat & Engine Co., boats	A 4
Bowler, Holmes & Hecker Co., engines	K
The Bridgeport Motor Co., Inc., engines	E
Brooklyn Varnish Mfg. Co., Kauri varnish	26 and 27
Burger Boat Co., 36-foot cruiser	B 4
C. N. Cady Co., engines	F 1, F 2
Cape Cod Ship Building Corp., dories	A 6
The Carlyle Johnson Machine Co., reverse gears	K
Geo. B. Carpenter & Co., marine equipment	41
Champion Spark Plug Co., spark plugs	33
Columbian Bronze Corporation, propellers	L
Consolidated Shipbuilding Corp., cruisers, boats and engines	A 2, A 3
J. H. Curtiss Co., Inc., marine plumbing	1 and 2
Cutting & Washington Radio Corp., radio outfits	17
Camden, Anchor-Rockland Machine Co., engines	F 1, F 2
Thos. Fleming Day, Inc., small boats and canoes	D 2
Dean Engineering Co., engines	34 and 35
The Debevoise Co., paints	29
Disappearing Propeller Boat Corp. of New York, boat and propeller	D 1
Dodge Sales & Engineering Co.	C
The H. C. Doman Co., Doman engines	K
Domestic Electric Co., Inc., elec. appliances	14 and 15
Chas. D. Durkee & Co., marine hardware	92
Edison Storage Battery Co., batteries	30 and 31
The Elco Works, boats	B 2, B 3
Hubbard H. Erickson & Co.	62
Evinrude Motor Co., detachable motors	C
Fay & Bowen Engine Co., boats and engines	A 1
Fire Gun Mfg. Co., fire extinguishers	82
E. Fougera & Co.	3
The Francke Co., flexible couplings	50
The Frisbie Motor Co., Frisbie motors	E
Generator Valve Co., valves	63
Henry J. Gielow, Inc., designs and brokerage	25
Gierboltt Gas Motor Co., motors	O
Chas. H. Gillespie & Sons, paints	32
Gimbel Brothers, boat fittings	71
Great Lakes Boat Building Corp., boats	40
Gray Motor Co., engines	G 1
Greenport Basin & Construction Co., boats	A 6
W. S. Hall Co., steering gears	42
Hall-Scott Motor Car Co., Inc., engines	N
Hoover Suction Sweeper Co.	83 and 85
Hyde Windlass Co., propellers	H
The J. V. B. Engine Co., engines	E
Kermath Mfg. Co., Kermath engines	K
The Ker-o-eL Sales Co., electric light plants	12
Knox Motors Associates, Knox motors	G 2
L. O. Koven & Brother, tanks	43 and 45
Geo. Lawley & Son Corporation, boats	B 1
The William Leard Co., crank shafts	84
The Leece-Neville Co., starters	24
Luders Marine Construction Co., express cruiser	A 5

EXHIBITOR AND EXHIBIT	SPACE NO.
Marburg Brothers, Inc., Diesel engines	13
Arthur Phelps Marr & Co., Inc.	78 and 80
The G. H. Masten Co., boat accessories	J
The Mianus Motor Works, Mianus and oil engines	B 6
Miller Engine Co., engines	F 1 and F 2
The Moto-Meter Co., Inc., Boyce moto-meter	86
Motor Boat Publishing Co., magazines	57 and 59
Motor Boating, magazines	52 to 55
Murray & Tregurtha Corp., engines	M
National Life Preserver Co., life-saving garments	72
The Navy Gear Mfg. Corp., reverse gears	44
New Jersey Motor Sales Co., motors	J
New Jersey Paint Works, paints	36
The N. Y. Yacht, Launch & Engine Co., engines	F 1, F 2
Niagara Motors Corp., engines	F 1, F 2
Outing Publishing Co.	37
Palmer Bros. Engines, Inc., Palmer engines	C
Paragon Gear Works, reverse gears	20 and 21
Parr-Loichot Engine Corp., engines	F 1, F 2
Peerless Marine Motor Co., engines	G 2
Power Boating magazines	88
Pyrene Mfg. Co., fire extinguishers	73
Red Bank Yacht Works, boats	B 5
Red Wing Motor Co., engines	C
Regal Gasoline Engine Co., engines	C
Richardson Boat Co., boats	A 4
Robertson Lubricants Co., oils	51
The Rudder Publishing Co., magazine	28
The Sea Sled Co., sea sled	A 4
Scripps Motor Co., motors	G 1
Simms Magneto Co., ignition appliances	61
Sinclair Refining Co., oils	7
The C. C. Smith Boat & Engine Co., boat	J
Edward Smith & Co., varnish	22 and 23
Smith-Meeker Engineering Co., batteries and generating sets	30 and 31
Smith & Serrell, couplings	50
The Snow & Petrelli Mfg. Co., reverse gears	67 and 69
Sperry Gyroscope Co., gyroscope and compasses	91
The Stine Screw Holes Co., tools	60
Southland Steamship Co. (Lebby Products Dept.), searchlights	77
Sterling Engine Co., Sterling engines	E
Standard Gear Co., reverse gears	39
The Sterno Corporation, yacht stoves	58
Stromberg Motor Devices Co., carburetors	75
B. F. Sturtevant Co., engines	F 1, F 2
W. & J. Tiebout, marine hardware	18 and 19
Toppan Boat Mfg. Co., boats and launches	B 4
Topping Brothers, hardware and engines	46 and 48
Valentine & Co., varnishes	47 and 49
Van Blerck Motor Co., engines	F 1, F 2
Verrier, Eddy Co., Lathrop engines	C
The Wheeler-Schebler Carburetor Co., carburetors	56
E. J. Willis Co., boat equipment	87 and 89
Winton Engine Works, Winton engines	M
Wisconsin Motor Mfg. Co., engines	B 7
Wolverine Motor Works, engines	L
C. A. Woolsey Paint & Color Co., paints	16
Wright Engine Co., engines	F 1, F 2
R. W. Zundel Co., Inc., boat equipemnt	74 and 76

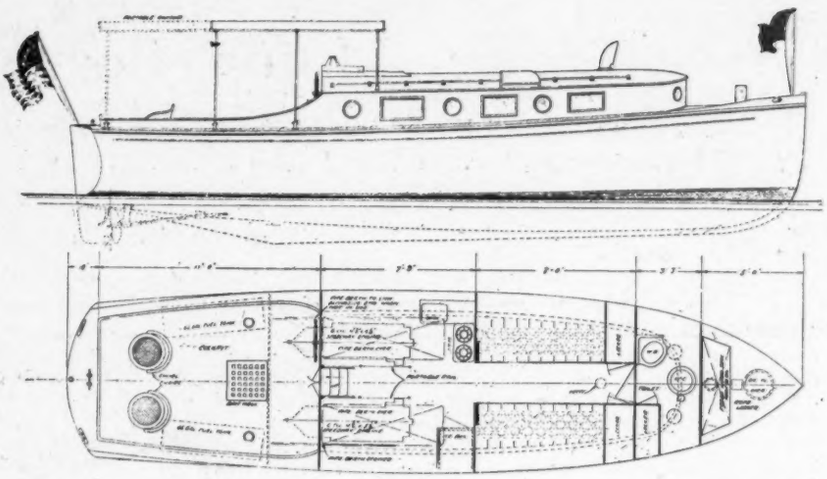
The Exhibits

A Florida Cruiser, Runabouts and Speedway Engines

THE Consolidated Shipbuilding Corporation, Morris Heights, New York City, one of the oldest exhibitors at the Show will have an exceptionally attractive display of boats and engines at their space, A-2 and A-3, in the Grand Central Palace.

A new Florida fishing boat 36 feet 6 inches in length will, no doubt, be considered the feature of their exhibit. This design has just been brought out by the Consolidated and the boat will prove of great interest to motorboat enthusiasts. On a length of only 36 feet 6 inches, the designers and builders have demonstrated their skill in producing an ideal Florida cruiser as well as a fishing boat *de luxe*, that has the comfort and accommodation of a much larger craft.

The extenive plant of the Consolidated Shipbuilding Corporation at Morris Heights, where steel and wooden hulls, steam engines, boilers and gasoline engines are manufactured, may also be seen at the Show in the form of a complete model by a noted model maker. The model measures 5 feet in length by 3 feet wide, and is enclosed in a plate-glass case. Those visitors of the Show who have never seen the works of the Consolidated Company will have an opportunity of visualizing the scope of this organization. The model is an excellent piece of work, and will prove an interesting feature of the exhibit.



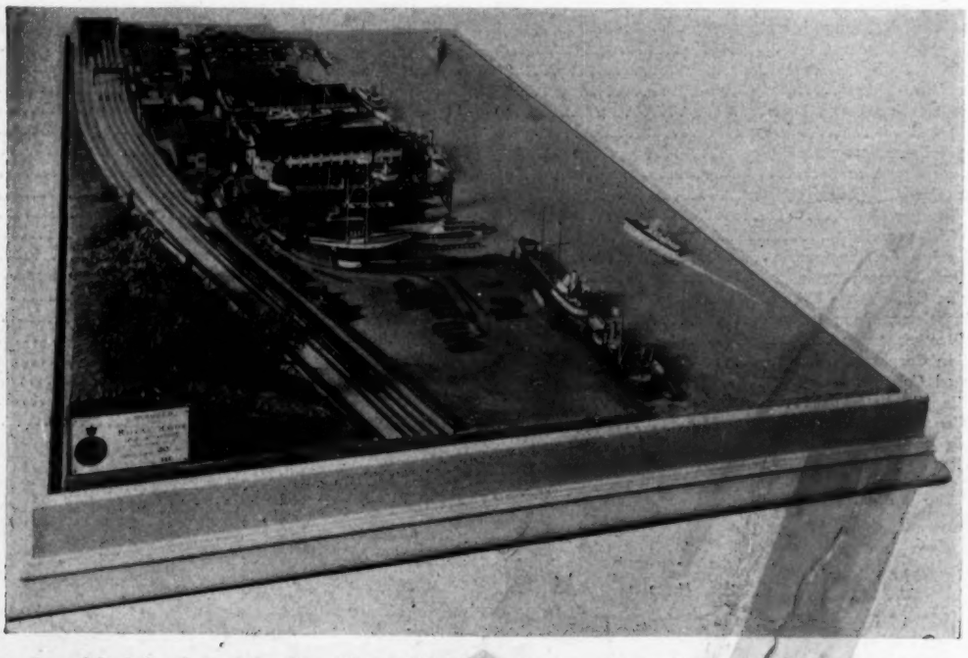
Plans of 36-foot Florida cruiser and fishing boat *de luxe*, built by the Consolidated Shipbuilding Corp.

Several stock boats, runabouts and yacht tenders will also be shown. The well-known Speedway engines, of which the Consolidated are the designers and builders will be no less prominent than in former years.

Fay and Bowen Runabouts and Engines

Boats and engines are both interesting to the motorboat sailor, and when both are the product of the same builder, assuring proper power for the hull, the result is worthy of special attention. Fay and Bowen Eng. Co., make both boats and engines and the latter may be seen in the former at the Show. They exhibit one 24-foot junior runabout, which is a snappy little boat, powered with a 17 H. P. engine, giving a speed of 15 miles, and one 27-foot runabout, with a 20-40 H. P. engine, giving a speed of 19 miles per hour.

They also show one Model L-40 four-cylinder, four-cycle engine, 17 H. P., with electric starter, one Model LN-42, four-cylinder, four-cycle engine, 20-40 H. P. with electric starter, one four-cylinder, four-cycle engine, 30-45 H. P., one six-cylinder, four-cycle engine, 30-50 H. P., with electric starter, one six-cylinder, four-cycle engine, 45-65 H. P., with electric starter, and one Model TG-45 heavy-duty four-



A model of the plant of the Consolidated Shipbuilding Corp., at Morris Heights on the Harlem River, which will be exhibited at the Show

cylinder, four-cycle engine, 35-55 H. P., with cylinders 6½ inches x 8 inches.

Ten Sterling Engines and a Sterling Powered Racer

In the block occupied by the Sterling Engine Company, of Buffalo, will be found one of the most complete and interesting lines of engines at the Show. It will comprise ten complete Sterling engines, among them being types suitable for any kind of marine service.

A sectional engine of the new dual-valve GR type, cut so as to expose the interior mechanism, will be shown, similar to the sectional exhibit of last year, and duplicates of the power plants that won the marine motored express cruiser and displacement runabout championships this year will also be seen and will prove of great interest to the man looking for speed in his boat.

In addition to the regular line of Sterling engines, Mr. Harry B. Greening, owner of the *Rainbow*, has consented to allow his boat to be exhibited. This is the boat that won the Fisher Trophy at Detroit. This is a most remarkable boat, and in her boat builders and boat owners will see something different in the way of construction from the usual practice. She is planked on the bottom with mahogany, while her topsides and deck are laid in Haskolite, a new composition. She is finished with nickel and aluminum fittings, giving a general color scheme of red, black and silver. The engine of this boat is highly polished, and the wiring installation was done by the Westinghouse Electric & Mfg. Co. It would be well for one to note this installation as it is the finest of its kind.

This boat is not exhibited with any thought of competing with American built boats, and is simply shown through the courtesy of Mr. Greening for the benefit of the boating public.

Canadian builders cannot compete with American built boats as there is a high duty on Canadian boats coming to this country, as well as a Canadian duty on American boats.

Everything for the Boat

In space No. 41, Geo. B. Carpenter & Co., of Chicago, have a very complete line of Marine Hardware, which includes practically every article necessary for the equipment of a motorboat or sailing yacht. In addition to all the various fittings which the boat owner is interested in, and must provide each year to make his boat comfortable and safe, some of the new articles which will be found at Geo. B. Carpenter & Co.'s exhibit are: New cast brass searchlights with patented searchlight control for ease of operation, Carpenter cast brass running lights, and cast aluminum and cast brass ventilators. For steering the boat, there is the Carpenter polished bronze drum steerer, the Kainer Ropeless Steering Device, while the Kainer Reverse Gear Control provides a positive and convenient control that will appeal to power boatmen.

Mr. F. S. Wood, the head of the Marine Department of Geo. B. Carpenter & Co., is in charge of the exhibit and will be glad to discuss the needs and equipment problems of all boat owners.

"Frisbie and I" On the Job

The exhibit of the Frisbie Motor Co., of Middletown, Conn., will consist of the following Frisbie engines, of the same type that this company built last year:

A 5 Horse Power, 7 Horse Power, 10 Horse Power, 16 Horse Power, 30 Horse Power and 40 Horse Power.

The 5, 10 and 30 H. P. are 4¾-inch cylinder with 5-inch stroke, and the 7, 16 and 40 H. P. are of 6-inch cylinder with 6-inch stroke. All of these motors are equipped with Paragon reverse gears.

To one engine will be attached the Frisbie kerosene device and to another the special slow-down attachment, of interest to salmon fishermen, crab-tongers, etc. The 4-cylinder motors will be shown with the new enclosed type of reverse gear.

As usual the "Frisbie an' I" sign, which has become so well known throughout the trade, will be a striking feature of the exhibit. Mr. W. E. Gibb, sales manager of the Frisbie organization, will be in charge, and anyone interested in boats and engines will be free to call at any time during the Show for advice towards the solution of any engine difficulties with which they may be confronted.

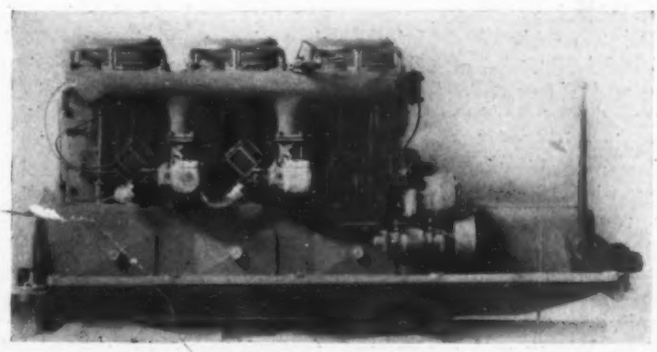
Life Saving Suits

One of the most practical and efficient life saving suits ever invented, and one which proved its value many times during the war period, may be seen in the space occupied by the National Life Preserver Company. This is the famous Ever-Warm Safety Suit, in various sizes—for men, women, and children—in life-size models. Young men and women will give actual demonstrations of putting on the suit, "in less than a minute," which is the slogan of the makers.

The suit will be shown in detail, also, with the patent closure and self-adjusting elastic collar which makes the suit absolutely watertight, and the kapok pads or lining which gives it the remarkable buoyancy that enables the wearer to help rescue others . This is the suit's remarkable margin of safety. An illustration of the buoyancy, in an actual water test, will be carried on throughout the week.

There will be official records showing the approval by the U. S. Navy and the use of the suit by thousands in the United States and in foreign countries, and data on the lives saved in actual sea disasters, such as that of the S. S. *President Lincoln*, the *Aurania*, and others. The suit will appeal to yachtsmen, fishermen, and seafaring men in general.

The Ever-Warm Safety Suit, as is generally known, is a garment made with shoes and mittens, all in one piece, completely enclosing the body in a watertight suit. It is worn over all the clothing and



Six-cylinder, Model G. R. Dual Valve Sterling Engine, built with double carburetor, exhibited at the Show

shoes and is so simple in construction that it can be put on in a few seconds. In addition to being highly buoyant it has the invaluable feature of protecting the wearer from wet, cold and exposure.

The 20-H. P. Knox Motor

One of the new models at the Show this year is the Standardized Knox enclosed motor, which is being exhibited by the Knox Motors Association. This is a high-grade motor of 20 H. P. developing its power at 900 revolutions per minute, and is being made as a quantity proposition, which insures high quality at a moderate price.

The cylinder head is removable and is fastened to the cylinder by means of heat treated studs providing for drawing the head down uniformly upon a copper asbestos gasket to prevent leakage. The head is completely water jacketed, allowing the water to circulate around the valves, but can be readily removed.

Overhead valves were in the first Knox motors built and have been a Knox standard ever since. This is one of the reasons for the efficiency of Knox motors, as they have back of them long experience with overhead valves. The removable cylinder head is cast in block, all valves being seated directly in the casting. This allows the maximum amount of water to circulate around the valves. For the man who wants a refined, reliable, medium speed engine for a launch, small cruiser or tender this engine will be worth careful study.

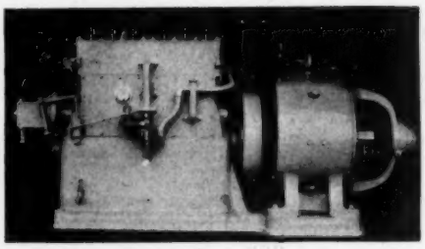
Winton Engines

After a ripe experience with marine motors in yachts, and knowing the need of engines whose performance would be above the average, Mr. Alexander Winton became a marine engine builder. In a splendidly equipped and modern plant, devoted exclusively to marine engine production, the Winton Engine Works, under the personal guidance of Mr. Winton, now builds gasoline marine engines in five sizes, ranging from 80 H. P. to 200 H. P.

The Winton Engine Works' exhibit at this year's Show consists of three complete units, a Model W 5, 125 H. P., six-cylinder gasoline marine engine, a Model W-2 Generating Set and a Model 85 Water and Air Pump. The high quality characteristic of all Winton engines—the result of broad experience and ample facilities—is apparent in the trim design and compact construction of these three units.

The model W-5 Winton engine has six 8-inch x 11-inch cylinders, is rated at 125 H. P. and has crankshaft diameter of 3½ inches. Its speed range is 100-450 revolutions per minute, and weight, 10,000 lbs. The cylinders are cast in pairs, made of special grade gray iron. Jackets are easily cleaned. Cylinders are bored and ground to assure perfectly round holes. The crankshaft is exceptionally heavy.

The engine is equipped with a Winton air starter—an exclusive feature. It is positive and eliminates cranking, while it starts engine and puts it at one's disposal in thirty seconds.



The Winton generator set, Model W 2

The Equipment includes carburetor, Bosch coil, Bosch magneto, magneto and battery current, one additional high tension magneto working on high-tension plugs giving two systems of ignition, air starter and counter, reverse gear and revolution counter to show the operator revolution per minute of engine at all times.

The Winton Generating Set, Model W-2, is pleasing in appearance and highly efficient. It has six 3-inch x 4-inch cylinders, 7½ K. W. Imperial generator, 1,200 revolutions per minute, 100 volts. It is also supplied in four-cylinder, 5 K. W., size.

The Winton Air and Water Pump, Model 85, is practically noiseless and is economical in pumping water out of boat and supplying air pressure for starting the engine and blowing whistle. It has Imperial Motor, 1½ H. P. at 1,500 revolutions per minute. Pumps 30 gallons per minute at 700 revolutions per minute. Air pump displaces 2 cubic feet of free air per minute at 700 revolutions per minute. Water and air pump operate separately.

Hall-Scott Marine and Aeroplane Engines

In space N, which is an exclusive little niche, located all by itself over on the north west corner of the building, the well-known Hall-Scott marine engines will be found.

As in other years, only stock motors will be shown, the Hall-Scott Company believing that those who know will appreciate the superiority of Hall-Scott workmanship without the need of special "Show finish." In addition to the regular stock engines in the four-cylinder 125 H. P. and six-cylinder 200 H. P. sizes, there will also be seen both four- and six-cylinder aeroplane engines to better illustrate the great difference between this type and the regular marine engine. There will also be a number of Hall-Scott parts taken from regular stock to show the extremely high quality of workmanship and the close attention to detail which distinguishes all Hall-Scott engines.

The exhibit will be in charge of Mr. A. J. Utz, Manager of the Eastern Sales and Service Branch of the Hall-Scott Motor Car Co. at Buffalo, N. Y., assisted by Mr. John G. Robinson and one of the executives from the factory at Berkeley, Cal.

For Perfect Lubrication

The principal feature of the exhibit of the Robertson Lubricants Co., Inc., will be entitled "The Proof of the Pudding," and will consist of the 250 H. P. Van Blerck motor belonging to Mr. Louis H. Eisenlohr and used in his yacht *Nymph*. This motor is in the exact condition in which it was removed from the boat after a hard season of running, and shows the carbon which is there in minimum quantities, the spark plugs and valves in perfect condition, the rings entirely free in their grooves and the bearings in perfect shape, as the result of using only Robertson Lubricating Oils.

The complete line of certified oils and the containers in which they are sold will be shown and a booket with the same slogan as above will be distributed, which shows pictures of the boats *Pickaninny*, *Nymph*, *Red Skin*, *Enchantress* and *Freda*. The first four boats have made important records and the *Freda* is one of the fastest boats in the vicinity of Philadelphia.

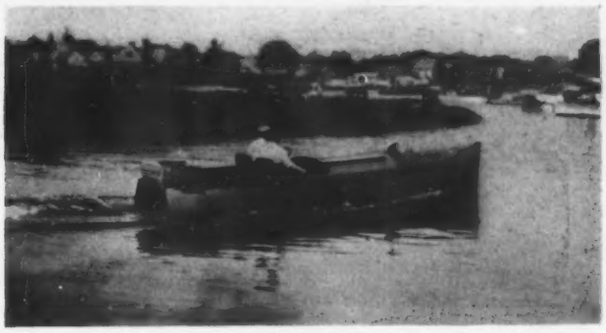
Toppan Dories, Launches and Tenders

The exhibit of the Toppan Boat Mfg. Co., Medford, Mass., will be a particularly interesting one to the man who is looking for a wholesome, able type of craft, either power or sail. The Toppan Boat Company have an unusually full line of models at the Show this year. One that will take the fancy of owners of moderate sized yachts is a new 12-foot power tender that is just what most of us have been looking for—a husky, able little boat that will carry up to six persons, will make about 7 miles per hour and stand up under hard usage. She rows and tows easily and is a trim little craft. The power is a 2 H. P. Barker motor. This boat is painted, but seats and backboard are natural wood, finished bright. Another model shown is a 22-foot dory launch, equipped with 9-12 H. P. Universal four-cylinder four-cycle motor, with brass fittings and full lockered seats upholstered with dark green leatherette cushions. She will carry 12 people and speed along at about 9½ miles per hour.

Other types shown are a 21-foot V-bottom runabout, finished in mahogany, and equipped with latest type 12-14 H. P. Kermath motor. This boat carries 6 people, and makes about 15 miles per hour, and is a classy, handsome craft. There is also on 18-foot Three-in-One power dory, which is equipped with a Barker Special motor, and with sprit sail. This boat, as its name implies, can be sailed, rowed, or driven by power. She makes about 7½ miles with gasoline motor, and is a seaworthy, light draft, and dry small auxiliary.

Then there is a 10-foot rowing yacht tender, built on the same lines as the 12-foot power tender, but shorter. Both boats are made round sided, round nosed and resemble a round bottom boat, but are much stiffer. This 10-footer can be equipped with detachable motor.

A 12-foot Toppan yacht tender which will appeal to the owners of small and moderate-sized yachts



A 21-foot Toppan mahogany runabout, equipped with 12-14 H. P. Kermath motor. She has a speed of about 15 miles

Marine Plumbing Outfits and Capstan

In space 1 and 2 (right near the band) The J. H. Curtiss Co. exhibit an unusually fine line of marine plumbing supplies that will fill every requirement of the bath and toilet room on the yacht, whether it be a large or small one. One of the features which this company expects to show is an electrically operated toilet which does away entirely with the hand pump and needs only a push of the button to flush the closet. This is suitable for boats from 60 feet in length upwards. For small yachts the No. 1394 and No. 1404 closets will be shown, while for larger yachts the No. 1405 and 1412, 3" closet will be exhibited. There is also a special pedestal closet for very large yachts.

The Curtiss Company also show a very attractive assortment of lavatories, including oval and square wash basins, in oak and mahogany trim, and a neat small, nickel plated brass wash basin for a small stateroom or toilet room.

But the thing that will doubtless appeal most to the practical yachtsman viewing this exhibit is the Curtiss yacht capstan, suitable for boats from 50 to 85 feet in length. This is a neat little capstan, which is operated by rachet handle crank, and will take either a rope or chain cable. It has a wildcat which can be thrown in or out, and is altogether a very handy and efficient piece of mechanism. Mr. J. H. Curtiss is a practical sailor himself and this capstan he had put out is one of the best on the market.

A 22-Foot Sea Sled

Another boat that will hold the attention of the "bugs" is a 22-foot Sea Sled, exhibited by the Sea Sled Company. This little 22-footer is planked with mahogany, has two large, roomy cockpits and is driven by a surface propeller making the boat of extremely shallow draft. This type of Sea Sled has demonstrated its ability in rough water. They were used by the Navy Department during the war for aeroplane tenders on account of their unusual speed together with seaworthy qualities.

A 50-Foot 35-Miler

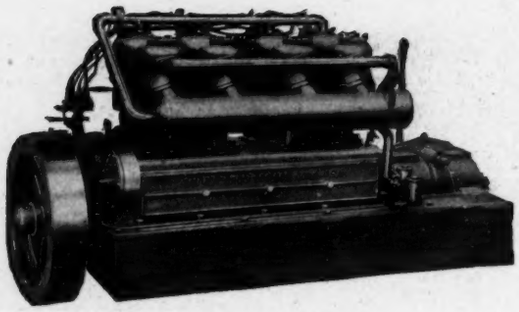
One of the features of the show this year is a 50-foot high-speed Express Cruiser exhibited by the Luders Marine Construction Co. of Stamford. Conn. This is the largest boat at the Show and the task of getting her to the Palace, and in place for the inspection of the visitors, was considerable.

She is a beautiful piece of workmanship, being planked with mahogany, highly polished, and finished throughout in the same wood. She is fully up to the Luders standard of construction. Forward, there is a large sheltered bridge deck from which place the boat is driven. Abaft this is an engine room and then a good size saloon, beautifully finished, furnished with rich upholstery and curtains and having a toilet room and small galley opening off it. The power plant consists of two 300 H. P. Sterling motors which drive her better than 35 actual miles an hour. This is no guesswork, but the boat has actuall been tried out in the water and has developed this speed.

The boat will be one of the attractions of the show and will interest not only those looking for high-class express cruisers for ferry service or day sailing, but will also appeal to all those who appreciate a good boat.

Tanks for All Purposes

The man who is interested in tanks for his boat, no matter for what purpose, will find the exhibit of L. O. Koven & Bro., very much to the point. Here he will find tanks for all kinds of use, including gasoline tanks, muffler



Four-cylinder, 24-H. P., 4-cycle Palmer engine, which will be seen at the show

tanks, air whistle tanks, exhaust manifolds, oil waste cans, etc. These are made in sheet tin, sheet iron and copper, made up particularly for boat use. They can be had in various sizes or made to pattern to suit the special requirements of any boat.

Palmer Motors in All Sizes

One of the largest engine exhibits at the Show will be that of the Palmer Bros. Engines, Inc., of Cos Cob, Conn. Palmer Bros. are one of the oldest and best-known makers of marine engines in the United States, and in the development of their large line they have kept up to the best practice, both in design and manufacture.

In the two-cycle line they will exhibit four sizes, in one and two cylinders, from 2½ to 10 H. P. The four-cycle line will show 13 sizes and models, which will be found suitable for every type of craft—yacht, workboat, fisherman, auxiliary, or power cruiser. In the one-cylinder engines will be found a 3½ and a 5½-6½ H. P., in the two-cylinder engines a 7 and a 10-12 H. P., in the 3-cylinder a 15-18 H. P., and in the 4-cylinder a 20-24 H. P. These are all medium duty engines developing their rating at from 400 to 600 revolutions per minute.

In the heavy duty models shown will be a 2-cylinder, 16-18 H. P. engine, a 3-cylinder 30-35 H. P. two 4-cylinders, 32-35 and 45-50 H. P., two 6-cylinders 50-60 and 75-80 H. P., and one two-cylinder stationary engine. These engines develop their rating as 300 to 400 revolutions per minute. In all the four-cycle models except the single cylinder a multiple disc reverse gear is mounted on the base, and in the single-cylinder size may be had if desired.

Reliability is the keynote of the Palmer Company and their engines are designed and built to stand up and run under the hardest conditions met with in marine service. The fact that they are in great demand among the owners of commercial vessels, where every day's lay-up means a direct loss, is proof of the way they have succeeded in this purpose.

Kauri Waterproof Varnish

The sales of Kauri Waterproof Varnish made by the Brooklyn Varnish Manufacturing Co. have increased to such an extent, in the marine field, that larger space is required at this year's Show to display it properly. Therefore, they have secured booths Nos. 26 and 27 where their products may be inspected.

The principal feature of the exhibit consists of a practical demonstration of the fine finish and enduring qualities of Kauri Varnishes, by the use of solid panels, five by eight feet in size, cut from the burl found on the giant California Redwood trees, and finished with Kauri.

The burls are very rare and are found upon these giant trees in the shape of a swelling or protuberance. The burl grows on the trunk and was undoubtedly caused by an injury to the tree during its growth. It develops into a mass of woody tissue of very intricate design, and is considered the most beautiful wood in the world. It takes from three to five years to season a burl preparatory to cutting it into panels such as are on display.

Protected with a beautiful, rich, weather-resisting finish of Kauri Waterproof Varnish these panels will last indefinitely.

Columbian Bronze Propellers

The propellers of the Columbian Bronze Corp. will be especially interesting this year to motor boat owners, as a new style Columbian wheel will be shown for the first time. This is known as the Style "J" Columbian Liberty Propeller, and is intended for high-power, high speed engines. It has been so designed as to embody the great strength required for this service without sacrificing speed.

The Exhibit will be in Block "L", on the Lexington Avenue side of the Palace, and will be made up of the usual line of Columbian propellers and accessories, attractively mounted and illuminated. The qaulities of speed and balance in these propellers will be especially featured.

Elco Cruisettes & Express Runabouts

The Elco Company have a comprehensive line of four boats at the Show. These consist of the 32-ft. Cruisette, 1921 Model, a boat that has proved a satisfactory little cruiser. She is 33 feet long overall, 8 ft. 6 in. beam and 33 in. draft and is equipped with a 40 H. P. engine.

Then there is a 40-ft. Cruisette, similar in design to the 32-footer but with additional accommodations.

Another boat is a new type 30-ft. Express, a very comfortable boat having 6-ft. beam and suitable for use on any body of water.

Equipped with an engine developing 66 H. P., she has a speed of 21 miles.

There is also a 36-ft. Express. This new boat retains all the beauty of lines, construction and detail of its predecessors and, in addition, is considerably larger, the beam being 6 ft. 6 in. She is equipped with a Sterling G. R. engine of 225 H. P. and has a speed of 32 miles.

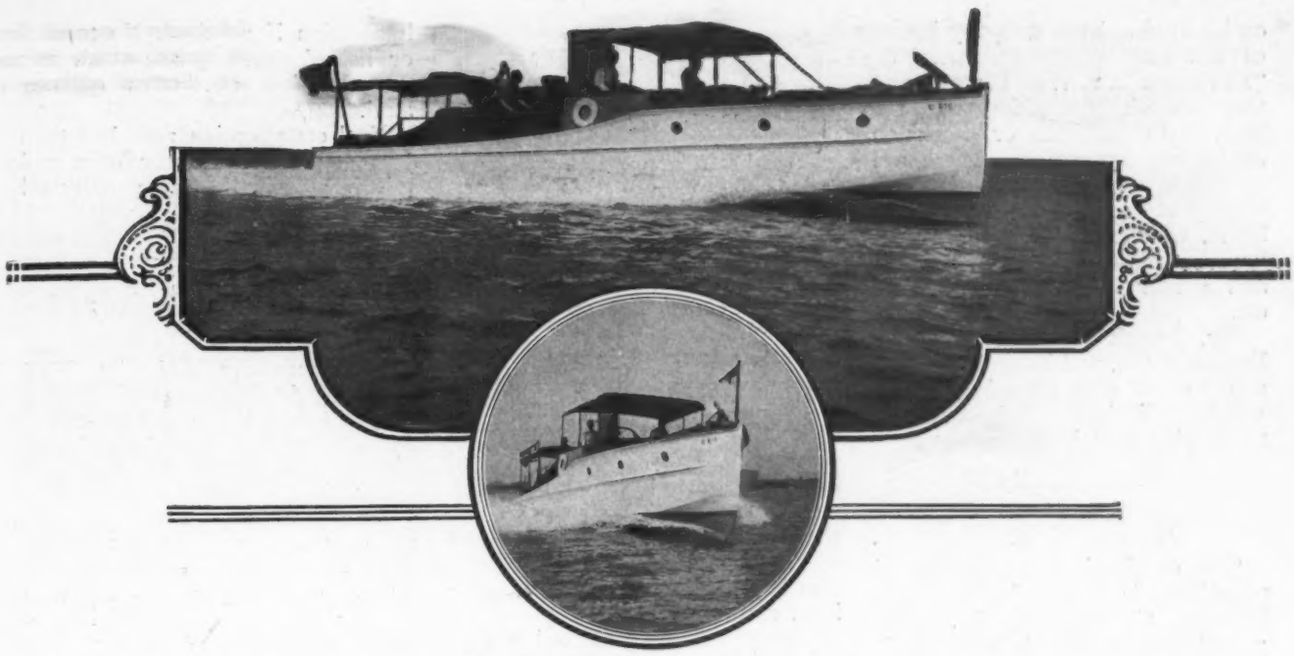
Paragon Reverse Gears

In spaces 20 and 21 on the mezzanine floor. Paragon Reverse Gears will be exhibited, and, in addition, the officers of the Paragon Gear Works will be At Home to the many users of these gears who visit the Palace. Paragon Reverse Gears are known, wherever there are motor boats, as a gear that stands up in actual service and does all that is asked of it.

A full line of these gears will be shown, suitable for the smallest sized engine and right up to those built to fill the needs of the biggest marine internal combustion engine used for pleasure or work boat purposes.

Hardware for Wet Places

No boat can be operated successfully without suitable equipment and fittings, and the motor boat or sail boat owner will find the booth of C. D. Durkee & Co. a place of interest in which he will find the thousand-and-one articles needed



"Owaissa" 48 feet x 10 feet, 6 inches x 3 feet Express Cruiser designed by Wm. H. Hand, Jr., built by Fred S. Nock. Owned by R. E. Paine, Boston, Mass. Powered with a pair of six cylinder, Paragon-equipt Van Blerck engines.

IT IS not how good a Reverse Gear is claimed to be, it is how good the Reverse Gear works in actual service that counts.

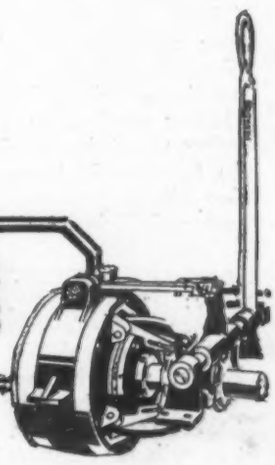
Which possibly accounts for the almost universal adoption of the Paragon Reverse Gears by manufacturers of the better type of marine engines.

It is reasonable to suppose that such concerns as the Van Blerck Motor Company, who pride themselves on turning out a product which is as good as money, brains and initiative can make it, only continue to use Paragon Reverse Gears year after year beause they have proven in actual service to do the work required of them consistently and efficiently.

PARAGON GEAR WORKS

TAUNTON, MASS., U. S. A.

PARAGON REVERSE GEARS



© 1920, Rex W. Wadman, Inc.

on his craft. This company is one of the leading manufacturers of "Hardware for Wet Places" and they exhibit everything for the boat, from portlights or chocks to navigating equipment. There are several types of anchors that are worthy of special attention, searchlights, whistles, pumps, compasses, logs, lifesaving equipment, running and anchor lights, steering gears, etc.

Mr. Joseph Hossack, of C. D. Durkee & Co., will be on hand himself to see that all of the new articles of boat equipment are thoroughly explained.

Hyde Wheels

One of the largest exhibits of propellers is that of the Hyde Windlass Co. of Bath, Me., where a full line of the famous Hyde Wheels is to be seen.

It is due to the Hyde Wheel and the efforts of this Company in perfecting the design of wheels for pleasure yachts and high speed boats, that such phenomenal speeds have been made this year, and a list of the boats that have been equipped with Hyde propellers includes the names of most of those that have hung up records. In this list are the names of such well known craft as:

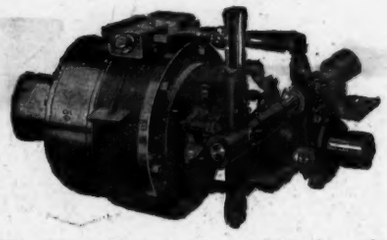
Miss America	Shadow V
Brush By	Rainbow
Sure Cure	Hoosier V
Miss Toronto	Mystery V

Henry J. Gielow, Inc., at the Show

The well-known firm of Henry J. Gielow, Inc., occupies space number 25 at the Palace, which they have fitted up very comfortably as a reception room for the convenience of their clients and friends. Here some member of the firm will be in attendance, for the discussion of plans for new yachts, or the offerings in the sale and charter market, or for a friendly talk on yachting affairs in general. In fact it will be a meeting place for all yachtsmen to whom the name of Gielow is familiar.

Mianus Diesel Engines

The improved Diesel Heavy Oil Engine, made by the Mianus Motor Works will be represented by a 60HP, four-cylinder, and a 30HP, two-cylinder engine. There will also be a practical demonstration



The Navy Reverse Gear exhibited at the Show. It is a one-way clutch with a reverse mechanism attached

of the fuel injection system showing spray nozzle and pumps in operation. This will be particularly interesting as it will show the condition of the fuel as it is admitted into the precombustion chamber, the shape of the spray, etc. There will be exhibited, also, such parts of the Oil Engine as Crank Shafts, Pistons, Connecting Rods, Bearings, etc.

There will be exhibited also a regulation power life boat showing a typical installation of a 10HP Mianus Life Boat Special Motor. There will be shown in the two-cycle gasoline line, engines of 3HP, 5HP, 7½HP single cylinder, and 6HP, 10HP, and 15HP double cylinder models, with exhibits of parts, showing methods of machining and finishing.

In this heavy oil engine, which is a full Diesel type, the Mianus Co. have, by means of the Leissner gasifying system, been able to secure complete and perfect combustion, economy and efficiency, and perfect control without having to rely on compressors, air injection, valves and all the more or less complicated mechanism that must go with these.

In the pre-ignition chamber where the fuel is injected in solid form, combustion first takes place, building up a pressure which provides the same atomizing or gasifying effect as the fuel is forced into the combustion chamber proper, as in the ordinary Diesel engine where air injection is used. This is automatic and requires no mechanism at all.

There is, of course, no explosion, and therefore no vibration. The high compression insures complete burning of the fuel with no possibility of carbon deposits. This is in common with all good Diesels. There are no adjustments of any kind since fuel pumps are actuated by eccentrics keyed to the shaft and cannot be changed. Air is always used in the same quantity, so there are no air adjustments. Lubrication is by force feed, and the quantity is set at the factory, although means are provided for giving additional lubrication if required. No torches or heated surfaces are used, nor are electrical appliances of any kind.

Fuel consumption runs less than ½ pint per horse power hour, and this is always the same under all conditions.

Twentieth Century Motors

In spaces F-1 and F-2, New York Yacht Launch and Engine Co., will exhibit a 4-cylinder 6½"x 8½", 40-50HP 20th Century and a 6-cylinder 6½"x8½", 65-75HP 20th Century Motor. This Company will also have an automatic illustrating machine to depict boats built at its plant on the Harlem River. This will give an excellent idea of the size of the New York Yacht Launch and Engine Co's plant—and show the fine types of boats built there.

Sperry Stabilizers and Navigating Equipment

The exhibit of the Sperry Gyroscope Co., at the Motor Boat Show will be held, as usual, in preferred space No. 91, center front of the mezzanine floor. The following apparatus will be shown:

A Ship Stabilizer Model and Equipment, a Gyro Compass Equipment an Electric Log and Shoal Water Alarm, a Dead Reckoning Equipment, a Model of Mr. Edgar Palmer's auxiliary *Guinevere*, now nearing completion, a High Intensity Searchlight and various Navigational Instruments.

Sinclair Oil for Lubrication and Gasoline

That such high speed as 77.8 miles per hour, which was made this last summer by *Miss America*, was possible, was only due to the high quality of the lubrication and the fuel used, according to "Gar" Wood, the boats owner. Both the gasoline and oil were the product of the Sinclair Refining Co., of Chicago, Ill., who will have an exhibit at the Show consisting of its line of lubricating oils for all purposes. This exhibit will be most attractive and interesting to all motor boat owners who are anxious to learn what makes for efficient lubrication. Demonstrations and tests of Sinclair Oils will be made at space No. 7, at the Palace.

LIDWINA III
formerly Speejacks

LIDWINA III Wins Sallan Trophy

The Sallan Trophy

RELIABILITY

Competing against other Express Cruisers, the LIDWINA III returned from the Detroit races in September bearing with her the coveted Sallan handicap trophy.

The LIDWINA III, formerly the SPEEJACKS, was designed and built by us in 1910.

The recent performances at Detroit of this nationally known boat is, naturally, very gratifying to both the owner and ourselves. As builders of both hull and engines, we feel more than proud of her achievement.

The winning of the gold cup by the LIDWINA III, after ten years of active service, speaks for itself.

CONSOLIDATED
SHIPBUILDING CORPORATION
MORRIS HEIGHTS NEW YORK CITY

Exhibiting at the New York Motor Boat Show

LAY YOUR PLANS NOW

The boating enthusiast who devotes some time *Now* to formulating his plans whether for building, or refitting, is strong to reap the benefit of greater efficiency, economy and satisfaction in the next sailing season.

He can proceed with the assurance that he will have plenty of company as more new boats were added to the pleasure fleets the past season than in many years. All signs point to a greater growth and prosperity of the game in 1921 than ever before.

Go to the National Motor Boat Show at the Grand Central Palace and you will obtain many new and valuable pointers which will assist you in perfecting your plans.

In the carrying out of these plans the CARPENTER service will be of the greatest assistance. Our long familiarity with the boatman's requirements enables us to give expert advice and our immense stock facilitates filling orders in the shortest possible time.

Our catalogue gives an idea of the amplitude and variety of our stock besides containing authoritative articles on the care and management of all kinds of boats, installation of engines, etc.

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GEO·B·CARPENTER & CO.

Marine Supplies

202 W. AUSTIN AVE., CHICAGO

What They Think of the Sailplane

St. Louis, Mo.

To the Editor of YACHTING:

I read with great interest the article in the November issue by Malcolm and T. A. McIntyre on their invention, the Sailplane. The idea is original, not to say revolutionary, yet so simple that I suppose I speak for thousands when I ask, "Why did I never think of that myself?"

The mechanical principles employed are sound and have been recognized as such for ages. It is easy to see that equilibrium is possible among the forces involved, independent of the wind velocity, but is not so easy to see why that equilibrium is stable, that is, why the craft returns to the upright position when pushed out of it. I think that the stability depends upon the elasticity of the planes. If the leeward plane dips more than the windward one it receives more than its share of the water pressure and bends up, becoming flatter. At the same time the windward plane, being relieved of part of the pressure upon it, also bends up, becoming flatter. The flattening of the planes increases the righting moment and tips the boat back. Since it is the relative dip of the planes that counts the action should be satisfactory in rough water as long as the outriggers stay out of the water and the lower ends of the planes stay in.

If a catamaran will nose-dive, a Sailplane might conceivably do the same thing, so it would seem wise to use a long hull. Also, the draft should be kept light, else the planes may not get enough of the lateral pressure to do their duty. If unavoidably the lateral resistance of the hull is large, there should be some means of drawing the forward edges of the planes to windward. In some cases it might be wise to have pontoons at the ends of the outriggers, to preclude the possibility of rolling over in a calm. In the "three-point suspension" model these last difficulties will not be met. In any case, however, the rigging must be strong!

The inventors propose the Sailplane primarily for racing and secondarily for day sailing, but why stop there? The device is really a stabilizer, and promotes speed only indirectly. A small cruiser, for example, could have more headroom on a lighter draft with planes than with ballast. We cannot at present deny the possibility of applying planes to large vessels, thought there might be difficult problems to solve before that could be done. No doubt the Sailplane idea will receive a good deal of study and experimentation in the next few years, and its possibilities and limitations will be well worked out.

I supose a good many yachtsmen will wish to try out the idea themselves, and will appreciate it if the patentees will announce, through your columns, under what conditions they will permit such activities.

L. H. D.

Sailplane Good for Smooth Waters

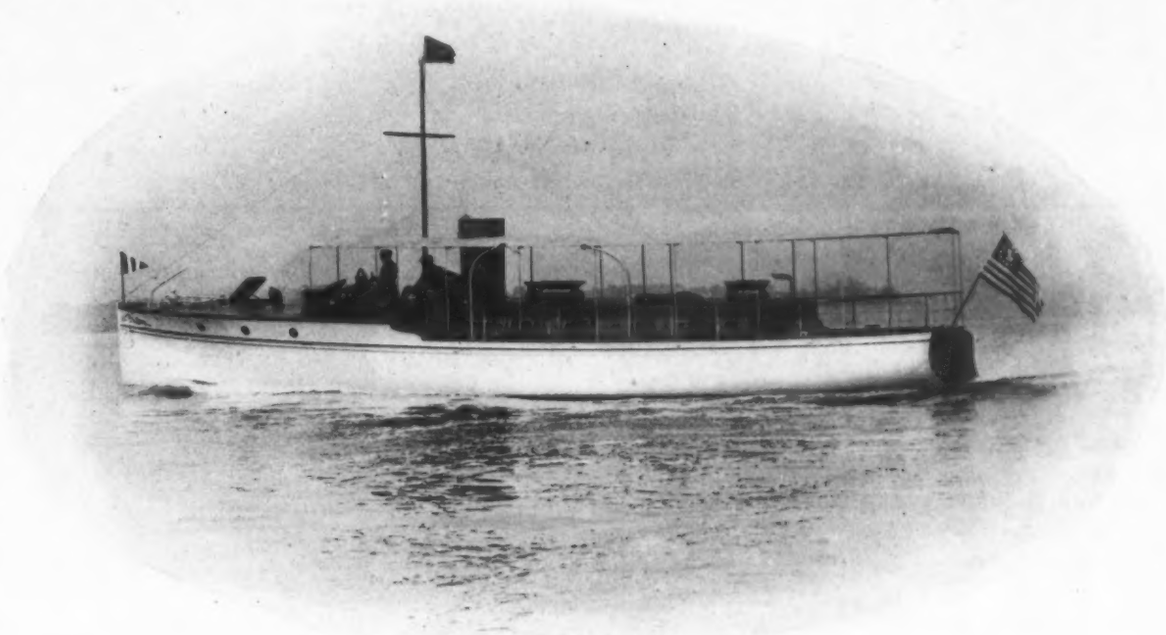
The principles involved in the Sailplane, described in your November issue, are exceedingly interesting, and while I don't think that a boat of this type would be much good except in very smooth water, I believe that under favorable conditions the design should prove very fast. With refinement of construction details and with three point suspension, the boat ought to do 20 miles an hour in strong breezes.

H. S. L.

Built By

LUDERS

The Last Word in Yacht Designing & Building



One of our 60-Foot Twin Screw Standardized Cruisers

For Immediate Delivery

and

Especially Suited for Florida Service,

A new 60-foot, twin-screw standardized cruiser. Beam, 12 feet; Draft, 3 feet; Speed, 14 miles per hour. Large Saloon, Stateroom, Bathroom, and Galley. Ideal for the Southern trip.

Luders Boats have a distinctive quality that makes a special appeal to those who know.

LUDERS MARINE CON'T. CO.

STAMFORD, CONN.

Curtiss Motor-Boat Water Closets

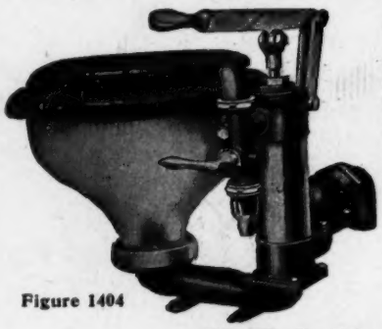


Figure 1404

A NEW IMPROVED MOTOR BOAT CLOSET

Dimensions, 18x18x11" high to top of bowl. 2½" cylinder. For above or below water line.
The best little closet on the market today, possessing many of the advantages of the large size toilet. All brass and porcelain. Oak seat and cover.

Curtiss Porcelain and Folding Lavatories

Corner Porcelain Lavatory

Dimensions, 12" x 12", 12" x 14" and 12" x 15".

Folding Lavatories in all styles and sizes.

Fig. 1392-A

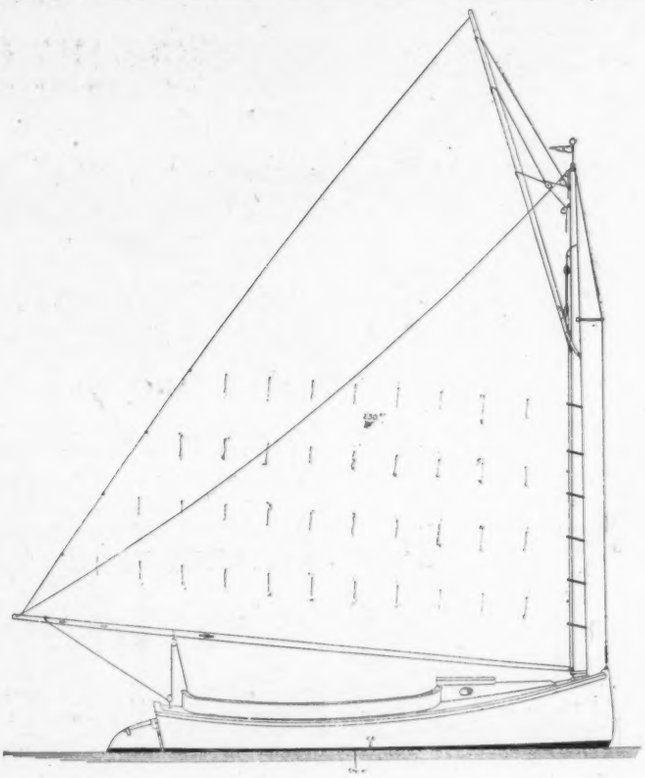
"All prices subject to market advances, which are continually changing"

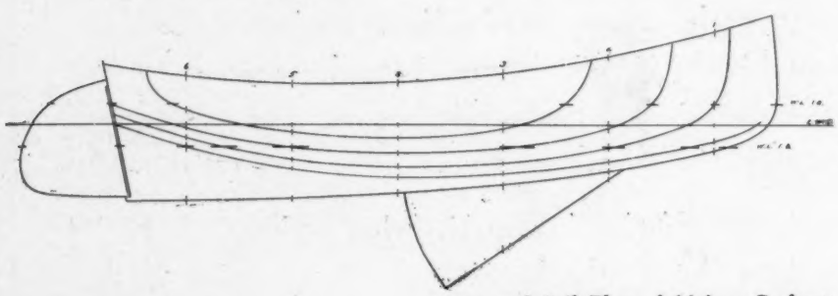
Manufactured Solely by

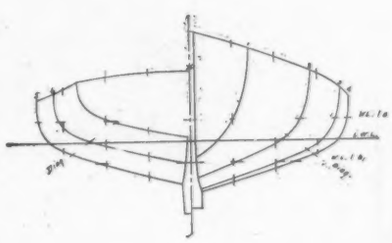
THE J. H. CURTISS CO., 2 South Street, New York

A 16-Foot Catboat

The catboat seems to be coming into its own again, judging from the number of small classes using this rig which have come into being in the last few years. The rig has many advantages, especially in small boats and for the use of beginners. The accompanying plans of a little 16-footer, which came from the office of John G. Alden, of Boston, show a particularly husky and able little boat, 16 feet long over all, 7-foot 6-inch beam, and 2-foot draught without board. The sail area is 230 square feet. While the boat follows the conventional Cape Cod model, she should be easy to build and will make a very attractive small boat for day sailing and one-design racing. There is a large open cockpit, 8½ feet long, with seats on either side, and a small cuddy forward.







Lines and Sail Plan of 16-foot Catboat

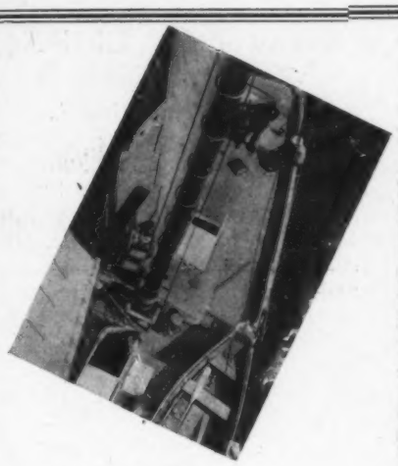
DOES YOUR BOAT LEAK?

Send for Booklets—"HOW TO MAKE YOUR BOAT LEAKPROOF," and "MARINE GLUE—WHAT TO USE AND HOW TO USE IT." Any old boat so long as the frames are in fair condition can be made water tight by following the instructions in the above booklets. This applies to anything that floats from a canoe to a yacht. Put your leak troubles up to us; We will help you to stop them.

JEFFERY'S MARINE GLUE IN ALL THE VARIOUS GRADES

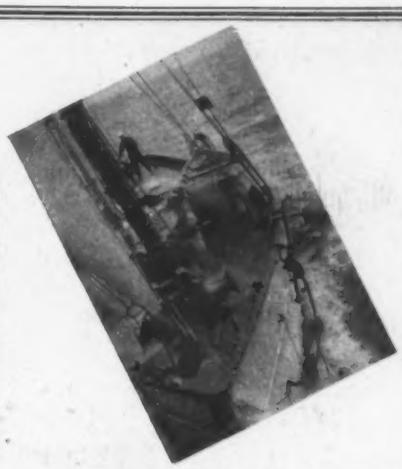
For sale by all Yacht, Boat and Canoe Supply Houses; Hardware, Paint and Oil, and Sporting Goods Dealers.

L. W. FERDINAND & COMPANY, 152 KNEELAND STREET, BOSTON, MASS., U. S. A.



The Deck of a Real Boat

Whistler—61-foot Auxiliary



Plenty of Room for Small Boats

The HAND Auxiliary Has Made the Same Name for Itself

as did

the HAND V-Bottom Express Cruiser

They Are Distinctive ***In a Class by Themselves***

For the man who wants **ability, safety** and **comfort,** whether in a large or small yacht, there is nothing that will give as much satisfaction, foot for foot, as the Hand-type auxiliary schooner. Smart in appearance and under sail, fast under power, able to go **anywhere.**

There is an unusual demand for yachts of this type and I am preparing designs for auxiliary schooners from 45 to 120 feet in length. See one of these boats, or plans of them, before you decide on your next boat. You will be convinced.

WILLIAM H. HAND, JR., NAVAL ARCHITECT **New Bedford, Mass.**

New Navy Windlass

You can heave a line—let the chain run free—or stop it instantly. The three operations are controlled by one heaving lever. Has winch head for rope; wildcat for chain cable. No complicated parts. For anchors up to 150 pounds.

It Pays to Buy Our Kind

For 70 years WC has stood for the best and most economical Marine Hardware. Equip your boat with WC Fittings. You'll get more out of it, and more for it when you sell.

Get This Valuable Book

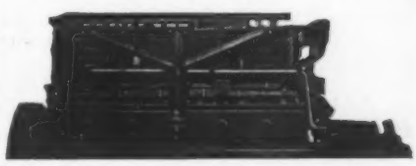
"Sea Craft Suggestions and Supplies." New, enlarged edition. Tells how to box the Compass; what is proper Ground Tackle; gives hints on Steering Gear, Shaft Bearings, Knots, etc. Fits the pocket (4½ x 7). 287 pages. Sent only on receipt of 50c.

WILCOX, CRITTENDEN & CO.
Incorporated

10 South Main St., Middletown, Conn.

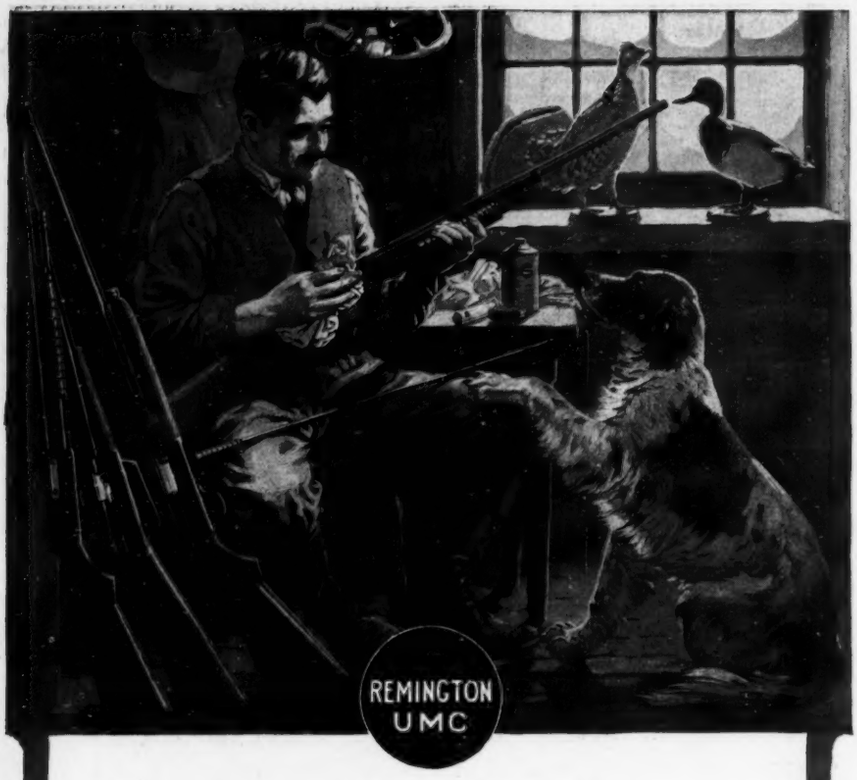
Mimi B—one of our 53-footers

We build yachts complete and there is no divided responsibility. Our 20th Century Motor, which we build in our own shop, is one of the leading engines. We are in position to build you a complete yacht, furnished and equipped, at prices that cannot be equalled when construction and finish are considered. Let US figure on your new yacht for next season.



6-Cylinder, 6½" x 8½" 65 H.P.
Twentieth Century Engine

N. Y. Yacht Launch
.....AND.....
Engine Co.
Morris Heights
NEW YORK



Gun-Cleaning Time!

This is about the time when the sportsman, who cares for his firearms as he should, sees to it that his shotguns, rifles and pocket arms receive a thorough cleaning.

Cleaning and oiling lengthens the life of a gun. But the kind of oil and grease used will determine the thoroughness of the job.

Three Remington products are available for putting firearms in good condition: Rem Oil, Remington Paravaseline and Remington Rust Remover.

Remington
TRADE MARK

Rem Oil is a powder solvent, lubricant and rust preventive all in one solution. One of the ingredients of Rem Oil dissolves the residue of burnt powder (particularly smokeless powder) which adheres like glue to the inside of the gun barrel after shooting.

Remington Paravaseline, when spread thinly in the bore and over the outside metal parts of a gun, protects it against rust. Remington Rust Remover will remove rust from the rifling or the exterior parts of an arm.

Ask your nearest Remington dealer for any one or all of these products. There are over 90,000 dealers who handle Remington products throughout this country—at your service for good shooting.

Send for general catalog

REMINGTON ARMS COMPANY, Inc.
Woolworth Building, New York City

Successor to
The Remington Arms Union Metallic Cartridge Company, Inc.

Seawanhaka Challenge Cup for Class R

That Cup which has been the prize in many a hard-fought international race since 1895, will probably be raced for this Summer, as the present holders of it, the Manchester Yacht Club, have changed the terms of the deed to make it open for competition in the "R" class, a class which is popular in Canada just now. The following is the announcement of the club regarding the change in deed:

"The Manchester Yacht Club of Manchester, Massachusetts, U. S. A., the present holder of the Seawanhaka International Challenge Cup, announces that it is prepared to receive from organized yacht clubs of nations foreign to the U. S. A. challenges for this Cup for a match to be sailed during the yachting season of 1921. Pursuant to the terms of the Declaration of Trust made in 1895, by the donors of the Cup, the Manchester Yacht Club now specifies the type of yacht with which it is prepared to defend the Cup, as Class R, 20-rating, as defined by the American Universal Rule.

CHARLES K. CUMMINGS,
Commodore, Manchester Yacht Club.

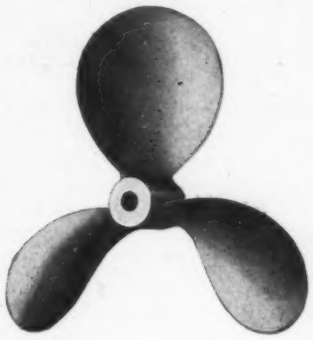
This Cup was formerly sailed for under the old Seawanhaka sail area-waterline rule that developed a scow type of boat. It was held in Canada for a number of years, was finally won for the United States in 1905, by the Manchester Yacht Club, and was successfully defended by them in 1910 with the *Massachusetts*. It is hoped the Canadians will come down after the Cup this year and show what they can do in our Universal Rule, which they have used for some years on the Lakes and in Nova Scotia.

New Class for Cedarhurst Yacht Club

The Cedarhurst Yacht Club, one of the most active organizations on the South Side of Long Island, and closely affiliated with the Rockaway Hunting Club, has just successfully promoted a class of 14-foot cat boats, fifteen of which will be built during the Winter and will be raced actively during the coming season, off Cedarhurst.

Those who have placed an order for these boats are, A. L. Norris, A. N. Peck, L. B. Elliman, Lindsley Tappin, Allan Wardwell, J.

RESULTS COUNT



It is a simple matter to make claims, but an entirely different proposition to substantiate those claims with evidence. If a statement is made that

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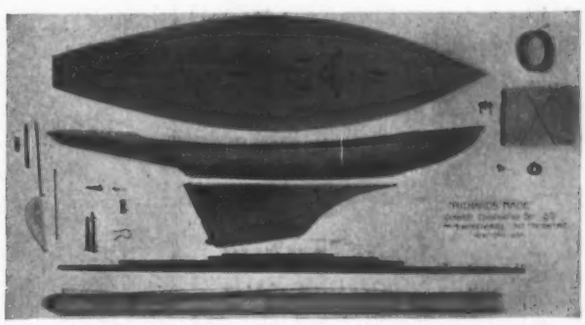

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These cat boats are of the well-known *Sea Mew* type, of which a number have already been built. The Cedarhurst Yacht Club has of late years devoted a great deal of attention to encouraging the sport of yachting among its younger members and a number of enthusiastic and skillful amateur skippers are being developed in this manner.

Before the Mast in War Time

(*Continued from page 293*)

waited on the skipper and mate at their meals, and talked with the cook whenever he came to the galley. I, in turn, took pains to make friends with the cook, for I knew the value of being on good terms with the lord of the galley. It meant many a hot cup of coffee or tea when wet and cold, that I would not have gotten otherwise. The cook was a West Indian negro, who had been cooking on deep-water sailing vessels most of his life. He was a good cook, and we seldom had cause to complain of food being spoiled in the cooking, as is often the case, where good grub bought by the owners, and in excess of the ration allowance is made unpalatable by poor cooking. His chief fault was that he was not strong on cleanliness and his galley was often dirty, but as a rule we found no dirt in the food he served us, and as we washed our own mess gear we could keep those clean if we desired. We had no crew's mess boy, however, as was then beginning to be required on steamers. Windjammer sailors have not yet come to that refinement of living conditions, nor are *baths* yet found on sailing ships, though they are required in steam.

Bill Sykes was constantly complaining about what he missed from a steamer's quarters. "We don't 'ave no wash room and we don't 'ave no heat and we don't 'ave no beddin' provided on this bloody wagon. Now, in the *Orleans*, which I comes off of, they provided all these 'ere things necessary for a bloke's comfort." Bill didn't look as if he would use a bath at anytime, and when we reminded him that a draw bucket was always handy, and there was plenty of water over side and no ladies about, he retorted that salt water didn't agree with his skin.

We had heat in the donkey boiler most of the time, however, and could dry out our clothes there in bad weather on a line the engineer let us rig up; and through the panel in the bulkhead we got some heat in the foc's'le, which was a great improvement on the cold, unheated foc's'les of the old days. In good weather and in the trades the fire was banked, but then we did not need heat. Also, the boiler and engine saved us many a long spell at the pumps, for pumping used to be the bane of a sailorman's existence in the old wooden ships with often a long spell at the pumps each watch. Now it was start only the steam pump and a "suck" could be had with no effort on our part. This is another one of the advantages of steam in a wind wagon.

So we stretched across to the Azores, taking only one gale of wind that kept us hove to for 24 hours, and were some 150 miles south of them when we changed our course to S. S. E. to make some southing. We had been kidding Bill for a week past, ever since we had been in the vicinity of the Islands, about our being picked up by Fritz, and that if we were boarded he would be taken prisoner by the German and make a cruise in a "sub," because he was the only Englishman on board. We ourselves were not then at war with the Imperial Government. He laughed it off, but we could see he was nervous, nevertheless, not having any citizenship papers. We were then in the sailing track from the English Channel to the Line, and one afternoon we picked up a full-rigged "Limey" flying light, bound out to the south'ard. Evidently her owners and skipper were not afraid of the submarine zone, subs or no subs. We exchanged signals with her and found she was the ship *Drumelton*, of Glasgow. Her skipper inquired in code if we had seen subs, and on our replying in the negative, signaled that she had been warned the day before by a British cruiser that one was operating in this vicinity.

This gave us *all* something to think about, as well as Bill, and the Old Man stationed lookouts forward and aft to watch for signs of one, though what good it would do us to know of his presence I do not know, as we were only making 5 knots in a light westerly breeze. At dark that night the *Drumelton* was only a blur on the horizon to starboard.

(*To be continued.*)

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State of New York, } ss.:
County of New York, }

Before me, a Notary Public in and for the State and County aforesaid, personally appeared W. A. Miles, who having been duly sworn according to law, deposes and says that he is the Business Manager of YACHTING, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 14, 1912, embodied in section 443, Postal Laws and Regulations, to wit:

(1) That the names and addresses of the publisher, editor, managing editor and business managers are: Publishers, OUTING PUBLISHING CO., 239 Fourth Avenue, New York City. Editor, Herbert L. Stone, 239 Fourth Avenue, New York City; Managing Editor, Herbert L. Stone, 239 Fourth Avenue, New York City; Business Manager, W. A. Miles, 239 Fourth Avenue, New York City.

(2) That the owners are: (Give names and addresses of individual owners, or, if a corporation, give its name and the names and addresses of the stockholders owning or holding 1 per cent. of more of the total amount of stock):

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(Signed) W. A. MILES, Mgr.

Sworn to and subscribed before me this 22nd day of September, 1920.

(Signed) MABEL C. MORRIS,
Notary Public, New York County.
Seal (My commission expires March 30, 1921)

Over and Back

(*Continued from page 285*)

chaser directly astern saw him go, and by an excellent display of seamanship, ran dead to windward of him, stopped, threw buoys and lines, and hauled him on board in the nick of time.

Another boat was given up as lost during the night. Her deck load of gasoline and oil had broken adrift and carried the life rails with it when it slid overboard. Waves broke in several of her hatches, her electrical system went out of business, and nothing was seen or heard of her all night. She bobbed up in the morning, however, more or less waterlogged, but still on the job.

A few days later we had a very disagreeable experience while attempting to fuel. Having been signalled to take the stern position on the starboard side of the tanker, we had worked in close and gotten our heaving lines aboard, when our wheel ropes parted. Although we immediately cast loose and went full speed astern the suction of the tanker pulled us in and under her counter, heeled us over at a sharp angle only a foot or two from her thrashing screw. After a tense moment or two we went clear, with no damage except a good scare, and went out of formation to make repairs, steering meanwhile with the emergency tiller. I hate to think what would have happened had we been in the forward position on the tanker, with a chaser just astern.

The monotony of the return trip from the Azores was greatly relieved by an innovation, which probably will not be duplicated for many moons. Each ship in the convoy was equipped with radio telephones, and there being no longer any need for a strict silence, the convoy commander gave permission for a concert each evening between six and eight o'clock. Selections rendered from any one boat could be heard perfectly on the other forty-odd boats by means of the "loud speaker," or sound magnifying device, located in the pilot house of each chaser.

Each evening the operator on the mothership would "tune in" with the other vessels, and soon the show was on. One boat would oblige by a banjo selection, another with a Caruso record on a phonograph, or perhaps a male quartet, of which there were two good ones. One chap, named Doherty, was in great demand, his sentimental ballads, rendered in a pleasing tenor voice, making a decided hit throughout the convoy. It was just like an amateur vaudeville show with the performers invisible, and was a pleasant diversion to break up the monotony of the long trip.

We dropped our hooks in Grassy Bay, Bermuda, ten days after leaving the Azores, this being the best record made by a convoy of chasers. A week in Bermuda was pleasantly spent in renewing our acquaintances and imbibing some real pre-war Scotch, and once again, on May 10th, 1919, we shoved of, in excellent spirits, due not only to the Scotch, but because we were bound HOME.

This last leg of 700 miles, from Bermuda to Charleston, was one of the finest trips we had. The sun shone brightly the whole time and our old enemy, the Gulf Stream, was as docile as a lamb. On the morning of May 14th, forty of us entered Charleston in two parallel columns. Then Bedlam broke loose. Several destroyers in the lower harbor saw us first, and cut loose with their sirens, the crews manning the rails and cheering madly. Whistles on shore took up the refrain, even the railroad locomotives joining in. The waterfront was jammed with cheering humanity. So, after a year's service abroad, we made our way up the narrow channel to the Navy Yard, homeward bound pennants snapping in the breeze, glad to be back at last in the good old U. S. A.

Announcement

In the January issue of YACHTING a series of articles will start on "How to Build a Model Power Boat." This will cover in order, the building of the hull, the boiler, installation of engines, etc. The articles will be illustrated in detail, so that all of the information and data necessary to build will be found in this series. Don't miss it.

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A 62-Foot Combination Cruiser and Day Boat

(*Continued from page* 295)

stant pressure on the hot and cold water systems at all times. The underwater exhaust is to be carried through water jacketed copper pipes to extension tanks and thence to an outlet in the two scoops in the bottom of the hull. Large stowage space is also made available aft for the housing of equipment required on extended cruises and fishing trips.

Some Single-Handed Cruising Rigs

(*Continued from page* 299)

the loss of weight aloft in the gaff.

I have under design now a little bugeye similar to the 22-foot schooner that found so much favor two years ago, and (with the owner's permission) I hope some time to give YACHTING'S readers another little easy-to-build craft that will be quite different from the schooners, yawls and ketches of the conventional cruising type.

Mary K—A Novel High-Speed Cruiser

(*Continued from page* 294)

heads at both ends of it, which serve the double purpose of stiffening the boat and of making the motor almost inaudible to the occupants of the cabins.

This after cabin is exceptionally large and airy, and has three windows on each side of the drop type, providing plenty of ventilation, even on the warmest day. The cabin is furnished with two large sofa-type berths with provision for upper berths when desired. At the after end on the port side there is a neat little toilet room, and on the starboard side a compact but completely equipped galley.

Los Angeles Athletic Club Goes in for Yachting

(*Continued from page* 301)

Garbutt, who has been both a windjammer and speed boat sailor, says that $750,000 will be expended in carrying out the project. This is a big figure, and if raised will make this Club the dominant one on the Pacific. Among those present at the meeting were E. D. Seward, I. G. Lewis, C. H. Matson, W. M. Garland, John W. Mitchell, H. T. Morrow. Full details and developments will be printed in a later issue of YACHTING.

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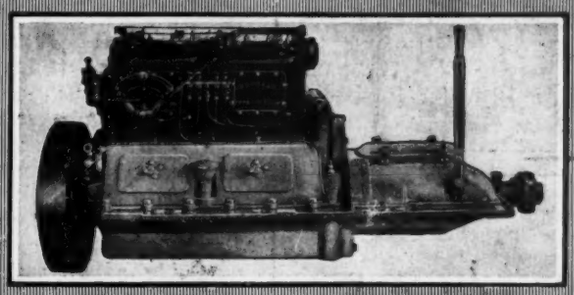

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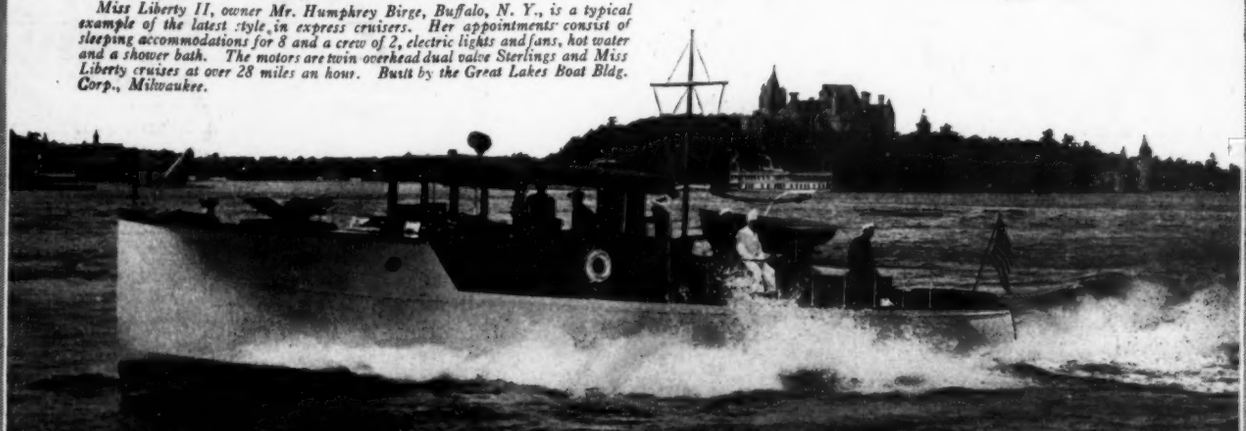

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